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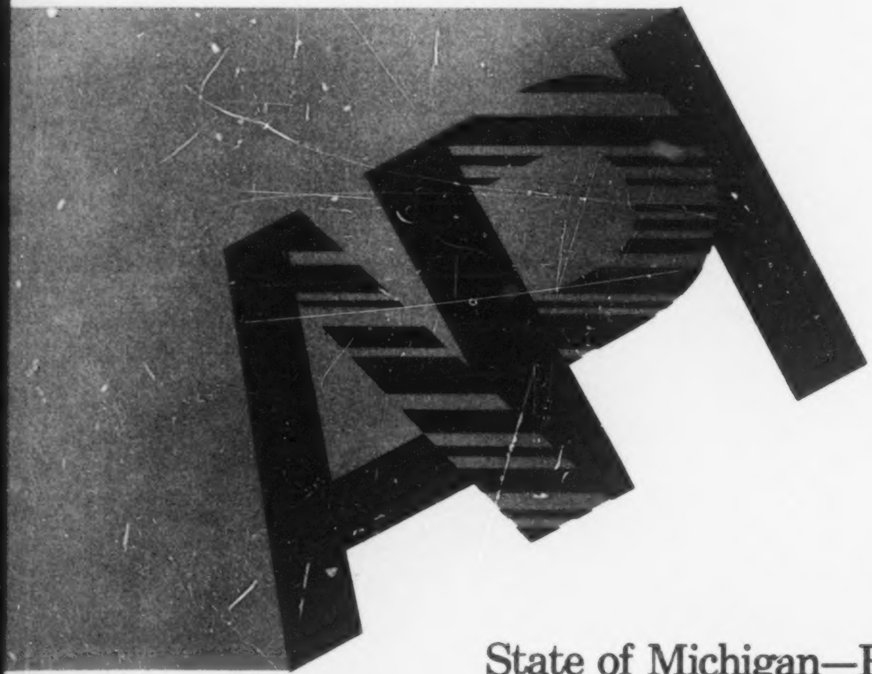
Annual Planning Information



State of Michigan—FY 1983

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STATE OF MICHIGAN
ANNUAL PLANNING INFORMATION
FISCAL YEAR 1983

Prepared by:

MICHIGAN EMPLOYMENT SECURITY COMMISSION

BUREAU OF RESEARCH AND STATISTICS

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PREFACE

The Annual Planning Information Report for Michigan for Fiscal Year 1983 provides a comprehensive narrative analysis of economic conditions in the state along with supporting statistical data. Changes in the demographic characteristics of Michigan residents as well as shifts in the composition of the labor force are discussed. The problems facing the auto manufacturers and other critical industries are reviewed. Also, major construction projects and business openings or closures are highlighted.

Historical, current and projected employment and unemployment developments are examined by age, race and sex. Additional items presented in this report include: an analysis of the immediate labor supply and demand situation, an identification of the occupations of displaced workers within industries hard hit by the recession, a projection of short-term occupational needs and data on the characteristics of the insured unemployed.

This Annual Planning Information Report is intended for use by business and labor leaders, governmental personnel, CETA planners and the general public. The data and analyses presented are aimed at providing consistent and timely labor market information for decision-making purposes. Any comments on the report or requests for additional information are welcome.

HIGHLIGHTS

* Michigan's Jobless Rate Highest in Nation for Second Straight Year
* Teenage Unemployment Highest Ever Recorded
* Record Joblessness Expected in Fiscal Year 1982
* U.S. Auto Industry Faces Difficult Decade
* Car Sales Hit 20-Year Low
* Domestic Auto Industry Loses $1.3 Billion in 1981
* One-Half of Manufacturing Jobs in Michigan are Auto-Related
* State's Financial Crisis Worsens
* Nonwhite Participation in Job Market Declines
* Discouraged Workers Hit Record Level
* Involuntary Part-Time Workers Increase
* Manufacturing Jobs at Lowest Level since 1962
* Services Was Only Industry to Grow between 1979 and 1981
* Many Michigan Workers Displaced by Poor Economic Climate and Changing Technololgy
* Auto Industry Upturn Will Lead to Some Job Gains in Blue-Collar Occupations by 1983
* Professional, Technical and Service Jobs to Exhibit Above-Average Growth between 1980 and 1983

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DESCRIPTION OF AREA

Michigan is divided into two peninsulas by the Straits of Mackinac and is bordered by four of the five Great Lakes (Erie, Huron, Michigan and Superior) as well as the states of Indiana, Ohio and Wisconsin. To the north is the Canadian Province of Ontario. In terms of land area, Michigan is the 23rd largest state but its coastline is second only to Alaska. Michigan's aquatic scenery consists of a 3,000-mile shoreline that extends along the Great Lakes and inland lakes that exceed 11,000 in number. In addition to 6.4 million acres of public forests, the state's 14,000 campsites and 83 parks and recreational areas have made Michigan a popular vacation-land in which billions of tourist dollars are spent annually.

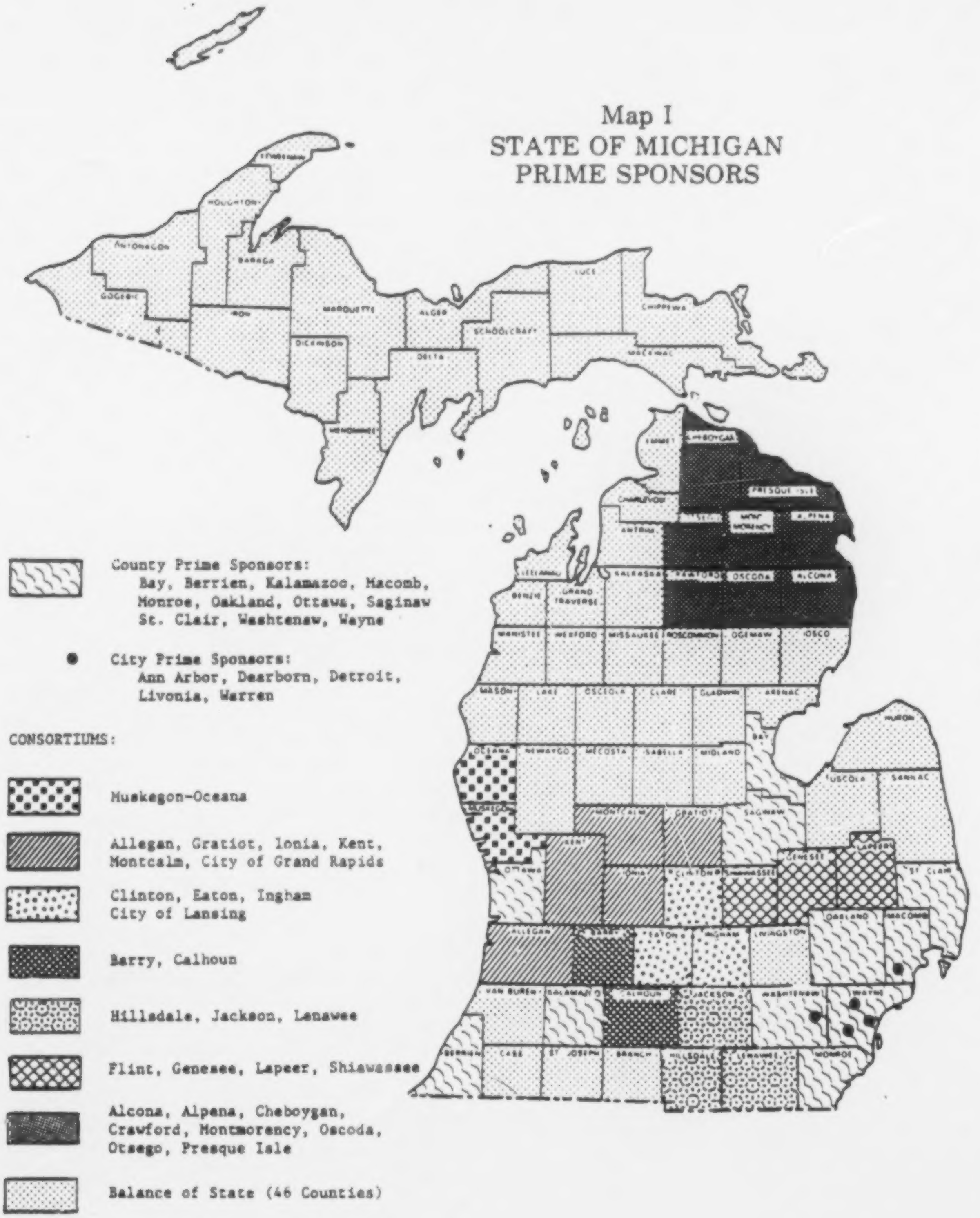
Michigan ranks first in the nation in terms of owner-occupied housing. Nearly 73 percent of all housing units in the state were owner-occupied in 1980. The median value of all houses was $39,000. Michigan's 1979 median family income of $21,886 nearly doubled over the decade to rank fifth among the states. Only 8.5 percent of the families in Michigan fell below the poverty level in 1979, compared with 9.6 percent nationwide.

The two peninsulas of Michigan are connected by the five-mile-long Mackinac Bridge, the third longest suspension span in the United States. The Upper Peninsula is rich in iron ore, copper and other minerals. The Lower Peninsula also has vast natural resources (oil, natural gas and salt), however, primary economic activity is centered around automobile manufacturing. Although efforts have been made toward industrial diversification, the transportation equipment industry and its vast network of supplier plants continue to form the mainstay of the state's economy.

Lansing, the state's legislative capital and fifth largest city, is centrally located in the southern portion of the Lower Peninsula. Detroit, the state's commercial capital and largest city with a population of over a million, is situated in the southeastern corner of the Lower Peninsula. With the central administrative offices of the three largest automakers and numerous factories and auto-related facilities, the Detroit metropolitan area is the focal point of manufacturing and trade activity in the state.

Michigan consists of 83 counties, which are grouped into 64 labor market areas (LMA's), of which 12 are defined as SMSA's. The state is also divided into Comprehensive Employment and Training Act areas, commonly referred to as CETA prime sponsor areas. The CETA Act of 1973 allows individual units of government, or combinations thereof, to apply for prime sponsor status. In Michigan, 25 CETA grants have been awarded to designated governmental units. In addition, the State of Michigan, through the Bureau of Employment and Training of the Michigan Department of Labor, serves as prime sponsor to 45 counties in the Balance of State.

Map I
STATE OF MICHIGAN
PRIME SPONSORS



▨ County Prime Sponsors:
Bay, Berrien, Kalamazoo, Macomb, Monroe, Oakland, Ottawa, Saginaw St. Clair, Washtenaw, Wayne

● City Prime Sponsors:
Ann Arbor, Dearborn, Detroit, Livonia, Warren

CONSORTIUMS:

▨ Muskegon-Oceana

▨ Allegan, Gratiot, Ionia, Kent, Montcalm, City of Grand Rapids

▨ Clinton, Eaton, Ingham City of Lansing

▨ Barry, Calhoun

▨ Hillsdale, Jackson, Lenawee

▨ Flint, Genesee, Lapeer, Shiawassee

▨ Alcona, Alpena, Cheboygan, Crawford, Montmorency, Oscoda, Otsego, Presque Isle

▨ Balance of State (46 Counties)

ECONOMIC DEVELOPMENTS AND OUTLOOK

The U.S. economy continued to fluctuate sharply in 1981. The nation's Gross National Product (GNP) climbed by a robust 8.6 percent in the first quarter, edged down 1.6 percent in the second, regained 1.4 percent of its loss in the third, and posted a 5.2 percent decline in the fourth quarter. The drop in the final quarter of last year was the economy's worst showing since the record quarterly downturn of 9.9 percent in the spring of 1980. However, for all of 1981, the market value of the nation's output of goods and services recorded a modest 1.9 percent gain, an improvement over the 0.2 percent decline recorded in 1980.

Cost of Living Eases

The increase in the cost of living in 1981, as measured by the U.S. Consumer Price Index, fell to its lowest level since 1978. Moderating prices of food and apparel were primarily responsible for the decline in the inflation rate from 13.5 percent in 1980 to 10.4 percent in 1981. However, just as inflation started to ease in late 1981, rising unemployment began to threaten the job security of many Americans.

U.S. Unemployment Approaches Record

Nationwide unemployment, which was at 7 percent last summer, soared to 8.8 percent in December 1981 and will most likely surpass the 9 percent postwar record set in May 1975. Almost 9.5 million people are now counted as unemployed. For some segments of the labor force, such as blacks and adult males, unemployment is already at its highest level since World War II. Blacks, for example, suffered a jobless rate of 17.4 percent in December 1981, while adult men were at 8.0 percent. In addition, the number of discouraged workers rose by about 150,000 in the fourth quarter of 1981 to 1.2 million, the highest level recorded since the current series began in 1970.

Michigan's Double-Digit Unemployment Continues

As the U.S. recession deepened during the last quarter of 1981, Michigan's economic situation went from bad to worse. After dropping to a 24-month low of 10.7 percent in September, the state's jobless rate jumped to 14.4 percent by year's end, the highest since March 1975. For the second consecutive year, Michigan's unemployment rate has averaged in the double digits and been the highest of any state in the nation. Because of the current national recession and the drastic impact it is having on the auto industry, the forecast calls for the state's jobless rate to move up to new highs during the first quarter of 1982. By mid-year, unemployment is expected to moderate somewhat.

Record Joblessness Expected in Fiscal Year 1982

On a fiscal year basis (October 1 - September 30), unemployment in Michigan is projected to climb from an average of 524,000 or 12.2 percent in FY 1981 to a record high of 602,000 or 14.0 percent in FY 1982. The previous high was recorded in FY 1958 when 12.8 percent of the civilian labor force was out of work. MESC's monthly statistical series on unemployment dates back to 1956. Prior to that time, data were available only from the dicennial censuses or special studies such as the one conducted in January of 1935 by the State Emergency Welfare Relief Commission. The findings of the latter study revealed that 18.8 percent of Michigan's employable population was either totally unemployed or on work relief jobs during that "Depression" year.

Assuming a moderate improvement in auto sales from 8.5 million units in fiscal year 1982 to 10.0 million units in fiscal year 1983, Michigan's economic picture is expected to improve somewhat in FY 1983. Unemployment should fall to about 539,000 or 12.4 percent of the workforce while employment rebounds by more than 90,000 to a level of 3,791,000. Even with the job growth projected for FY 1983, employment totals in the state will still remain 25,000 below FY 1980 levels. Over the same time period, the labor force is anticipated to grow by only 0.7 percent to a FY 1983 level of 4,330,000.

	FY 1981	FY 1982	FY 1983
Civilian Labor Force	4,295,000	4,300,000	4,330,000
Total Employment	3,771,000	3,698,000	3,791,000
Unemployment	524,000	602,000	539,000
Rate	12.2%	14.0%	12.4%

U.S. Auto Industry Faces Difficult Decade

The U.S. auto industry faces a difficult decade unless it can narrow its huge cost disadvantage in competition with Japanese automakers. Estimates of the difference range from $1,300 to $1,700 for a comparable subcompact delivered to a U.S. port. Since shipping and duty charges total $400-$500, the Japanese are building a car for about $2,000 less than U.S. manufacturers. Labor costs are also an important factor in the Japanese advantage. Auto-industry wages in Japan currently run about $8 an hour below those in the U.S. More than 750 American auto dealerships went out of business during the 1981 model year, compared with 1,643 during the 1980 model year, the worst rate in history.

Car Sales Hit 20-Year Low

Domestic car sales in the U.S. hit a 20-year low of 6.2 million units in 1981. The previous low of 5.6 million was recorded in 1961. Although domestic auto sales fell 5.7 percent in 1981, the drop was not as sharp as the 21.1 percent decline experienced in 1980. Sales of foreign imports also posted a loss of 3.1 percent in 1981, offsetting a gain of similar size in 1980. The import share of the car market remained relatively unchanged over the year, edging up from 26.7 percent in 1980 to 27.3 percent in 1981.

Domestic truck sales in the U.S. hit an 11-year low of 1.8 million units in 1981. The previous low of 1.7 million was posted in 1970. As with car sales, the decline of 9.6 percent in domestic truck sales in 1981 was a marked improvement over the one-third cutback experienced in 1980. Sales of imported trucks also declined by 7.3 percent in 1981 after posting a moderate gain of 3.5 percent in 1980. Foreign imports accounted for one out of every five truck sales in 1981, a proportion comparable to 1980.

State Share of Car Production Increases

A possibly encouraging sign for Michigan's auto industry was an increase in the state's share of U.S. car production, which climbed from 26 percent during the 1980 model year to 30 percent during the 1981 model year. The gain represented the state's highest proportion of output since its 32.3 percent share in the 1977 model year but still fell short of the peak 35.5 percent share reached in 1965. The Big Three all increased their output in Michigan over the past year. However, it was Chrysler Corp., with its popular new front-wheel-drive K-car, that nearly doubled its output share in the state and contributed the most to the increase. Chrysler's share of the state's auto production climbed from 6 percent during the 1980 model year to 11 percent in 1981 while GM's share dropped from 68 percent to 64 percent.

Domestic Auto Industry Loses $1.3 Billion in 1981

Losses in the domestic auto industry totaled $1.3 billion in 1981. As large as that may seem, it's a financial turnaround from 1980 when the four U.S.-based automakers lost $4.2 billion. Numerous cost-cutting measures and plant closings contributed to the improvement.

General Motors Corporation

General Motors Corporation reported an operating loss of $138 million in 1981. A tax credit of $123 million and a profit of $348 million from the financial unit, however, enabled the company to post a profit of $333 million, against a loss of $763 million in 1980. GM was the only U.S. automaker to post a profit for 1981.

In March 1982, General Motors and the United Auto Workers reached tentative agreement on a new contract which could save the company $2.5 billion. Under the proposed contract, which would expire September 14, 1982, UAW members would defer three quarterly cost-of-living allowances; give up paid personal holidays, "bonus Sunday" payments and a 3% "annual improvement factor" raise; and agree that newly hired workers be paid less than senior workers for their first 18 months of employment.

In return, the company would give its workers a profit-sharing plan; assurance that workers with at least 10 years seniority would receive at least 50% of their basic salary if laid off by a plant closing; a 24-month moratorium on plant closings caused by out-sourcing, pilot programs to guarantee "lifetime job security" for 80% of the workers at four plants to be named later, a legal services plan, an agreement to discuss retraining programs for displaced workers and enriched supplemental unemployment benefits. The company and the union also agreed that the contract could be renegotiated after January 1, 1983 if GM car sales exceed levels comparable with the highest six-month total in the 1976-79 period.

The impact on jobs was immediate as GM promised not to close four of the seven plants it either shut or began phasing out since talks collapsed earlier in the year. Two of those plants were in Detroit, the small die tryout facility on Milwaukee with 250 employees and the Fort Street trim plant with 3,000 workers.

Construction has been completed on the $130 million V-6 diesel engine plant in Delta Township near Lansing. Production started at the new GM facility in mid-1981. The plant employes 1,500 to 2,000 persons.

Completion of a $130 million expansion project at the Lansing plant of GM's Fisher Body Division has been delayed at least a year. Sluggish auto sales and a cash flow problem combined to delay the project. GM received a $10 million, 50 percent tax break on the project, which was to have been finished by the spring of 1983.

General Motors has also delayed by one year construction schedules for two new plants in southeastern Michigan. The $500 million multi-line assembly plant in Orion Township is now scheduled for completion in late 1983 or early 1984 for use in assembling 1984-model, front-wheel-drive versions of the Oldsmobile Ninety-Eight and the Cadillac DeVille/Brougham. Eventually, the Orion plant is expected to employ up to 5,000 on two shifts. The $500 million, 3-million-square-foot assembly plant on the Detroit-Hamtramck border is currently scheduled for completion in 1984 for use in assembling 1985-model, front-wheel-drive luxury coupes and sedans, including Cadillac El Dorados and Sevilles. Approximately 6,000 workers are slated to be employed at the Hamtramck facility.

In a cost-cutting move, General Motors Corporation announced last summer that it will no longer sponsor the General Motors Institute. The Flint-based institute, opened in 1919, is the only fully accredited college in the U.S. owned by a private business. In 1980, GM spent $16.1 million to educate 2,300 students in mechanical, industrial and electrical engineering and industrial administration. GMI has a faculty of 140.

The Oldsmobile Division of General Motors Corp. announced in early February that it will close its forging operation in Lansing due to an excess of capacity for such operations. Over 300 workers will be affected by the phaseout which will be completed by September 1982. The operation makes camshafts, rods, axle shafts, ring gears and pinions.

Ford Motor Company

Ford Motor Co. lost $1.06 billion in calendar year 1981. That compares with a loss of $1.54 billion in 1980, following four consecutive profitable years. In February 1982, the United Auto Workers and Ford reached an agreement on a new contract aimed at saving jobs for workers and money for the company through concessions from both sides. The 30-month contract allows Ford to freeze base wages until September 1984, limit cost-of-living allowances, suspend paid personal holidays and scale down wage and benefit rates for new employees. In return for the concessions, the union won guaranteed income for senior laid-off workers, a profit-sharing plan and curbs on future plant closings and "out-sourcing," the farming out of UAW work to non-UAW plants in the United States and abroad.

Ford closed its Michigan Casting Plant in Flat Rock in December 1981. The production shutdown was caused by the lack of demand for large eight-cylinder engine blocks. The facility opened in 1971 at a cost of $200 million. When Ford announced the closing last fall, the plant was operating at just 40 percent of capacity with some 1,600 workers, down from its peak level of 5,600 employees in 1978.

Chrysler Corporation

Chrysler Corp. reported a 1981 loss of $475.6 million. It was the fourth consecutive year in the red for Chrysler. However, there were signs of progress. Last year's loss represented a significant improvement from its 1980 deficit of $1.7 billion. In addition, Chrysler was the only U.S. manufacturer to report an increase in sales as their 1981 volume totaled 730,000 cars, 10.6 percent more than were sold in the prior year. Sales were aided considerably by the K-cars which accounted for 46 percent of their total volume.

Cost-cutting measures continued at Chrysler in 1981 as the firm phased out its Lynch Road Assembly Plant, which assembled the Plymouth Gran Fury, Dodge St. Regis, Chrysler Newport and Chrysler New Yorker. About 2,600 hourly employees were affected. The Lynch Road plant, built in 1928, was renovated in the summer of 1978 at a cost of $57 million. At its peak, the plant employed 5,000 workers.

Chrysler also recently announced that it will close its Scio Township plant near Ann Arbor by July, affecting 700 employees. The facility, which makes pressure gauges, speedometers and other items for instrument panels, will be consolidated with operations at Chrysler's electronics plant in Huntsville, Alabama. About 400 of the plant's employees will be eligible to transfer.

Chrysler is also gradually consolidating its Amplex plant on Mt. Elliot in Detroit with another plant in Van Wert, Ohio. The consolidation will result in the closing of the Mt. Elliot plant at the end of 1982. The Amplex plant includes Chrysler's marine division that makes inboard and outboard motors.

Chrysler Corp. recently announced plans to sell its profitable Defense Division to General Dynamics Corp. for $348.5 million in order to secure needed operating cash. The sale transfers the division's 7,000 personnel, all of its defense contracts, and plant and office equipment to General Dynamics. The sale includes title to the Sterling Defense Plant in Sterling Heights. General Dynamics will lease the Chrysler-owned Defense Engineering facility in Centerline and the Scranton Defense Plant in Eyon, Pennsylvania. The Detroit Arsenal Tank Plant in Warren and the Army Tank Plant in Lima, Ohio are government-owned, contractor-operated. Chrysler Defense currently has a defense contract backlog of $1.75 billion, including $997 million in M-1 and M-60 tank production orders.

Operations at Chrysler's Detroit Axle Plant will be moved to the Mound Road Engine Plant over the next 15 months. Rather than having several plants building rear-wheel-drive components in small volumes, Chrysler decided to consolidate them at one location to improve production efficiencies. About 900 workers are employed at the axle plant.

American Motors Corporation

American Motors Corporation lost $136.6 million in 1981, an improvement from a loss of $200.8 million in 1980. AMC was able to reduce its annual loss by 32 percent because of rigorous cost-cutting measures begun in 1980. Efforts to reduce costs would have been more effective had it not been for the extremely sharp domestic sales decline in the fourth quarter.

Although the company did not break out the dollar amount for overseas operations, AMC's international operations had record sales and earnings in 1981. AMC's improved international results reflect the benefits of AMC-Renault's export arrangements. Renault owns 46.4 percent of AMC and is contributing up to $370 million toward a plan for AMC to build Renault-designed vehicles.

In April 1982, AMC and the UAW reached tentative agreement on a contract which trades $115 million of worker concessions for an interest-bearing partnership with the automakers. With the concessions, AMC expects to underwrite a new line of Jeeps and front-wheel-drive compacts. Under the terms of the contract, union workers would forego 6 quarterly cost-of-living adjustments; cancel "annual improvement factor" raises in Toledo, Ohio and Wisconsin; and give up as many as 28 paid days off over the next 3 years. In return, American Motors promises to repay the worker concessions at 10% interest beginning in 1985; to set up a profit-sharing formula; to establish a prepaid legal services program; to reopen the contract if sales improve dramatically; and to support legislation requiring that cars sold in this country contain a substantial portion of U.S-built parts.

Checker Motors Corporation

Checker Motors Corp. of Kalamazoo posted a loss of $448,000 in 1981, a 118% drop from a profit of $2.45 million in 1980. Declines in auto sales directly affected the company and also reduced the amount of work subcontracted to Checker by other automakers. In fact, the company recently announced that it will stop building taxis in July. After 60 years of producing cabs, Checker will lay off about 225 production workers when it discontinues manufacturing taxis. The market for cabs has changed drastically in the last few years, with fewer taxis on the streets because of the high cost of operating them.

Volkswagen of America

Volkswagen of America has indefinitely postponed the opening of its $300 million plant at a former Army missile site in Sterling Heights. The plant will produce a version of the Rabbit subcompact, now being made at the firm's Westmoreland plant in Pennsylvania. Start-up employment of about 1,000 is expected with 3,500 to 4,000 workers projected when full production levels are reached in 18 to 24 months.

Volkswagen is also planning to move most of its Englewood Cliffs, New Jersey plant to the Detroit area. The firm is seeking a 70-acre site north of the city for a headquarters complex. Reportedly, most of the 500-person workforce will relocate over a two to six-year period.

Volvo

Volvo, the Swedish auto manufacturer, plans to open a Detroit area plant soon to build automated assembly line equipment. It will be the first foreign-owned operation to open in Michigan since Governor Milliken began his efforts to attract new industry last year. The company expects to employ 200 to 300 workers by 1984. It will build computer-guided vehicles to carry parts between robots in production facilities.

Vixen Motor Co.

The Detroit City Council has endorsed the application of the Vixen Motor Co. for a $1 million federal Urban Development Action Grant (UDAG) to help establish a recreational vehicle assembly plant in Detroit. The firm, which promises $7 million in private funds, would produce competitively priced, lightweight motor homes averaging 30 miles per gallon of gasoline. The plant would create 400 jobs within the next two years.

Whitehead & Kales

Whitehead & Kales Company, a River Rouge firm that manufactures equipment for railroad transportation of automobiles, stopped production on March 5, 1982. The plant employed 400 workers at the date of closure, with another 500 on indefinite layoff at the time. The firm was one of River Rouge's major employers.

Firestone Steel Products

Another downriver firm, the Firestone Steel Products Co. in Riverview will close by October 1982. The 43-year-old plant currently has 600 employees. The firm produces multi-piece truck wheel rims, which are no longer in demand. Firestone Tire & Rubber Co., the firm's parent company, has two other plants which make single-piece rims used in tubeless tires for better fuel mileage.

Burroughs Corporation

Burroughs Corporation is preparing to close its last manufacturing plant in the city of Detroit and combine its operations with those of the company's largest plant in Plymouth. About 100 jobs will be eliminated, reducing the combined Detroit-Plymouth work force to 1,600. There currently are about 650 employees at the Detroit plant. The 100 lost jobs will come from both plants. The consolidation is scheduled to be completed in the first quarter of 1982. After the consolidation, the Plymouth plant will be Burroughs' only manufacturing facility in the Detroit area. Until recently, the firm had a plant in Wayne with 500 employees but it was consolidated with the Plymouth plant in July of 1981. Burroughs' world headquarters and sales offices will remain in Detroit.

Hughes & Hatcher

Hughes and Hatcher closed more than two dozen of its nationwide outlets in early 1982 after filing for protection from creditors under Chapter 11 of federal bankruptcy laws. The Michigan stores which closed are at Pontiac Mall, Livonia Mall, Sears Lincoln Park shopping center, Northland shopping center in Southfield, Genesee Valley Mall in Flint, Briarwood and Arborland malls in Ann Arbor, Wonderland shopping center in Livonia, Universal Mall in Warren, downtown Detroit, Flint, Grand Rapids and Lansing, and Mack Avenue and Moross Road in Grosse Pointe Farms. An estimated 700 Michigan workers were affected by the closing of the men's fashion stores.

Tourism Industry Remains Healthy

Tourists in Michigan spent a record $9 billion in 1980 and may have established a travel trend that will keep the state's tourism industry healthy. While sagging car sales, inflation and unemployment have caused many problems for the state's economy, these same factors have aided tourism revenues as persons have foregone long-distance trips to vacation in Michigan. On a statewide basis, vacation-pleasure travel remained at about the same level in 1981 while business and commercial travel was down. When final figures are available for 1981, total expenditures on tourism will probably increase by 9-11 percent over 1980 levels but solely due to inflation.

Michigan Ranks High in Exports of Manufactured Goods

Exports of Michigan products rose to an estimated $14.9 billion in 1980. The increase kept pace with the 21.3 percent growth of total U.S. exports, which reached $220.6 billion in 1980. The state ranked second in exports of manufactured goods, surpassed only by California. Michigan's principal export item was transportation equipment, most of which was shipped to Canada. Other exported products include machine tools, primary and fabricated metal products, electric and electronic equipment, technical instruments and agricultural products. Although data are not yet available for 1981, Michigan is expected to continue to rank among the top five states in terms of exports of manufactured goods in 1981.

Convention Activity

The convention business in the Detroit area remained strong. The total number of conventions hosted during 1981 rose 11.8 percent over the year. Total attendance increased 26.8 percent but out-of-town attendance declined by 12.1 percent. Consequently, delegate spending on such items as hotel rooms and meals fell by almost 31 percent. The national average for a convention stay was 3.8 days but it dropped to just under 3 days in the Detroit area.

Another reason for the decline in delegate spending over the year was the Republican National Convention, which ran from July 11-18, 1980. The 21,000-delegate convention, including many out-of-towners, generated $44 million in revenue. The metro area received another boost in national prestige in 1982 when it became the first northern location to host a Super Bowl. The 81,000 football fans which attended the game generated $62 million in revenue.

Construction Activity

Although record high interest rates and rising material costs have delayed many construction plans and cancelled others, some major building projects are currently underway or scheduled to begin shortly in Michigan. One such project is a $25 million, 600,000 square-foot mall in Waterford Township. The 101-store facility will be built on a 75-acre site on M-59 at Hospital Road in Oakland County. Scheduled for completion during the summer of 1983, the Waterford Regional Mall will reportedly create 1,200-1,500 jobs.

Michigan Bell Telephone Co. began construction in August of 1981 on a $50 million computer center at the company's Northwest Office Center at Southfield and 9 Mile Road. The cost of the new center, which will be one of the largest in the Great Lakes region, will include a $20 million building and more than $30 million of computer equipment. Completion of the 4-story, 230,000 square-foot building is set for early 1984. The facility will be staffed by 250 technicians and computer specialists, boosting the firm's work force at the Northwest Office Center to about 1,600 people.

Four other major building projects are also in the works for Southfield. A $60 million, 750,000 square-foot, six-building office complex is currently underway on a 31-acre tract south of the I-696 service drive between Lahser and Telegraph. A $40 million, 250,000 square-foot, three-building office complex is planned on Northwestern Highway between Berg and Lahser. The 10-story, 370,000 square-foot Travelers Tower II is under construction adjoining the original tower on Evergreen and the 500,000 square-foot Galleria Officenter on Northwestern was scheduled to be started in December of 1981.

Southfield is not the only community in Oakland County with major office buildings underway. In Troy, a 26-story, 450,000 square-foot office tower is planned. It would be on Big Beaver at Livernois, near the new 15-story, 260,000 square-foot tower under construction at 100 North Centre. In downtown Pontiac, two 8-story office towers totaling 416,00 square feet are being built at the Phoenix Center Plaza. One tower is fully leased by the General Motors Truck and Coach Division. In Farmington Hills, a 300,000 square-foot office park, called Forest Park Office Center, is planned on Northwestern north of 13 Mile. In Bingham Farms, the 525,000 square-foot Bingham Center is under construction on Telegraph at 13 Mile and, in Bloomfield Hills, the 324,000 square-foot Stoneridge Office Park is underway on Woodward north of Opdyke.

A ten-level parking deck with space for 1,700 vehicles was opened in the New Center area in September 1981. Construction will begin shortly on the two skywalks connecting the parking structure to the Fisher Building and the New Center One Building. The New Center One, scheduled to open in the summer of 1982, will have 82,000 square feet of retail space on its first two levels and 65,000 square feet of space on each of its remaining six floors.

The twin 21-story towers adjacent to the Renaissance Center in Detroit were completed in late 1981. The towers contain 569,000 square feet of office space and 45,000 square feet of retail space. In addition, there is inside parking space for 550 vehicles.

Numerous other major building projects for downtown Detroit are on hold until economic conditions improve and/or additional financing becomes available. The projects include the Cadillac Center shopping mall, the Millender Center, Riverfront West, Phase III of Ren Cen and the Lafayette Bazaar. On the optimistic side, a face-lifting project was started last fall in the Broadway-Randolph business district with the aid of a $580,000 community development block grant. Also, the Detroit Economic Growth Corporation is helping to arrange financing for an $18-20 million renovation of Washington Blvd. and North Cranbrook Associates will begin work this year on a $15-20 million renovation of the Heritage Hotel.

Amway Corp. dedicated its $64 million Amway Grand Plaza Hotel in Grand Rapids last fall. Amway is one of the largest direct-sales companies in the world with revenues of more than $825 million in 1980. It is also one of Grand Rapids' largest employers with some 4,000 workers. Some 200 new employees will be hired by Amway Corp. over the next two years as part of a $20 million expansion project at the company's Ada manufacturing complex.

Steelcase, Inc., already the world's largest office furniture manufacturer, is beginning an expansion program that may create as many as 5,000 jobs in the Grand Rapids area in the next decade. The total project cost is expected to range from $358 million to $500 million. The first phase, to be completed by the fall of 1983, will include a 960-square-foot systems furniture plant and a 300,000-square-foot distribution center.

Stow-Davis Furniture Co., another office furniture manufacturer from Grand Rapids, announced plans last fall to build a $10 million plant to make a new line of office furniture at Kentwood. Construction is scheduled to be completed during the first quarter of 1982. The firm presently employs 600 persons at six Grand Rapids plants.

In Muskegon County, a $20 million hotel/convention center is being planned for the Norton Shores area. Plans call for a hotel/convention complex with a minimum of 150 rooms. Amenities include merchandising outlets, restaurants, tennis and racquetball courts, a golf course and a swimming pool. Construction is scheduled to begin this spring with completion in 1984.

Meijer Supermarkets Inc. is awaiting final approval from the Holland Economic Development Corp. for the issuance of $10 million in tax exempt bonds to finance the construction of a new Thrifty Acres supermarket in Holland. The store would anchor an enclosed shopping mall planned for a 72-acre site at 16th St. and Waverly Road. The 80-110,000-square-foot store will cost $7-9 million, employ up to 400 persons, and be completed by the fall of 1983.

The Michigan Department of Corrections announced plans last fall for a new co-ed prison in Eaton County. The 548-bed facility would cost $35 million. It would be located near the state's secondary complex.

Dart Energy Corp. announced plans last fall for a 14-story office/retail/ residential structure to be built in the 200 block of N. Washington in downtown Lansing. The complex will have two attached towers and will cost more than $10 million. Construction may begin this spring with completion scheduled for the summer of 1983.

Demmer Corp. will develop the vacant Diamond Reo site in Lansing into a $9-10 million industrial park. Demmer is a large tool and die manufacturer and will use about one-third of the park for a $3 million, 30,000 square-foot plant for itself and will sell or lease the remaining land to other high technology firms. The park is expected to create 1,100 new jobs with work getting underway in 1982 and completion scheduled for 1985.

A new $21.5 million Communication Arts and Sciences Building opened last fall at Michigan State University in East Lansing. The new structure provides up-to-date facilities for the teaching of communication arts, including journalism and telecommunications. It also houses MSU's public radio and television stations.

Groundbreaking ceremonies were held in December 1981 for the $285 million Replacement Hospital Project at the University of Michigan in Ann Arbor. The project includes an 11-story main hospital with a psychiatric wing, a new ambulatory care outpatient facility and parking facilities. The Children's Psychiatric Hospital, Mott's Children's Hospital, the Outpatient Bldg., the Women's Hospital, and possibly the Old Main will also be renovated. Completion is set for 1986.

Two major hospital expansions are being planned in Flint. The Flint Osteopathic Hospital is undergoing a $34 million expansion and remodeling project. Plans call for a 76,000 square-foot, three-story wing with space for a new operation and recovery unit, a new emergency room, coronary and intensive care units and a radiology department. Another 41,000 square feet of existing space will be renovated.

The McLaren General Hospital in Flint has a $40 million expansion and renovation program scheduled for completion in 1984. Plans call for construction of a 4-story building to house an enlarged operating suite, clinical labs, outpatient clinics, offices and a materials management center. A wrap-around addition, linking all buildings, is also planned.

A $38.5 million "Auto World" theme park is planned for downtown Flint. All exhibits, rides and a 500-seat movie theater will revolve around the history of the automobile. Financially tied to the project will be a $12.5 million motor inn developed by the same investors which recently completed the new 400-room $61 million Hyatt Regency hotel/convention center in the downtown area.

Upjohn Co. plans a $33.3 million research and development complex in downtown Kalamazoo. The new 288,000 square-foot facility will be built next to an existing research unit. The complex is scheduled for completion in January of 1984. Upjohn is a leading manufacturer of pharmaceuticals, agricultural and chemical products.

LoBretto Development Co. plans a $9 million, 10-story condominium office building in downtown Kalamazoo. The Commerce Center, to get underway this spring, is scheduled for completion in early 1983. The firm has applied for Kalamazoo Economic Development Corp. bonds to help finance the project.

The White Pine Copper Co. has a new refinery under construction in Ontonagon. The $78 million project is expected to provide 500 permanent jobs when it begins operating. Construction is expected to be completed by late 1982 but the refinery will not open immediately if copper prices remain low.

A number of expansion projects are underway among Michigan's paper producers. In Escanaba, Mead Paper Company will have a construction crew of 1,500 to 2,000 working this summer to complete a $285 million expansion program that will add 250 persons to its present pay roster of 1,100. Additional workers will be needed to harvest the wood. In Quinnesec, near Iron Mountain, construction started last spring on a $550 million Champion International paper mill that will employ 400 workers. Another 500 will be needed to cut and move wood to the plant when completed in 1985. In addition, trees will be cut in the Upper Peninsula to supply the expanded needs of Weyerhauser Corporation's plant under construction in Grayling. The $90 million plant will provide about 130 jobs. It is expected to be in full operation by the fall of 1982 making structure board, a substitute for plywood.

Developments in the Government Sector

President Reagan proposed a $757.6 billion fiscal 1983 budget with a near-record $91.5 billion deficit, more slashes in social programs, and the highest defense spending ever. Defense spending would increase $33.1 billion to $215.9 billion and $26 billion worth of cuts would occur in social programs, many of which were trimmed drastically in last year's $35 billion round of cuts. Among the programs to be cut will be welfare, education, medical aid to the poor and elderly and food stamps. Social Security will not be cut.

An additional $20.3 billion is expected to be saved by selling government property, accelerating off-shore leasing to oil and natural gas firms, limiting federal pay hikes, collecting debts owed to the government at a quicker rate and requiring tax withholding of 5 percent of all interest and dividends earned by individuals. Another $7.2 billion would be collected by closing business tax loopholes and employment programs would sustain a $2.6 billion cut. Lastly, $2.5 billion would be collected in "user fees," such as those paid by yacht owners for Coast Guard services. More money would be saved by dismantling the Departments of Education and Eneregy. Their duties would be assumed by other agencies. The budget also calls for special tax and regulator relief for new businesses in depressed areas called "enterprise zones." These zones would be set up over the next three years.

President Reagan has also asked Congress to transfer 43 federal programs back to state control in October 1983. The programs totaling $30.2 billion annually would be subsidized initially by a $28 billion fund financed by a federal windfall profit tax on oil and excise taxes on alcohol, tobacco, long-distance telephone calls and gasoline. The fund would be phased out in annual increments of 25 percent starting in 1988 and terminating in 1991 along with all but one federal excise tax. A 2-cents-per-gallon gasoline tax to maintain interstate highways would remain. The states would then have to decide how to pay for the programs. President Reagan also wants the states to assume the Aid to Families with Dependent Children and the Food Stamp programs, costing $16.5 billion annually. In return, the government would assume the states' $19.1 billion Medicaid health care program for the poor.

State's Financial Crisis Worsens

In March 1982, the Milliken administration requested an income tax increase, state employee wage concessions and additional budget cuts in order to avoid the most serious financial crisis in Michigan since the Depression. Specifically, the Governor asked for a 0.7 percentage point increase in the state income tax, effective April 1, 1982. Cuts of $166 million in state aid to higher education and $58 million in revenue-sharing payments to local governments were also recommended. Voluntary spending cuts by all state departments would save another $50 million while wage concessions and/or layoffs of state employees would save $20 million this year and another $60 million next fiscal year. Requested in an effort to avoid a more than $600 million budget deficit now projected for the current fiscal year, the record-level cuts would be in addition to the $270 million rollback order by Governor Milliken last October.

For fiscal year 1983, Governor Milliken proposed a nearly $5 billion budget which would provide for more money for higher education, local revenue-sharing, welfare, mental health and state police. If approved by the Legislature, the general fund budget would represent an increase of nearly 14 percent over the current budget. However, when adjusted for inflation, the increase would be a modest 5 percent.

Michigan schools are also experiencing severe financial problems as the result of troubles in the domestic auto industry, inflation, declining enrollment and the public's reluctance to approve new taxes. Unemployed auto workers have generated fewer state sales and income taxes, causing Michigan to cut its budget, including aid to local schools. State aid to public schools has dropped from about $1.4 billion annually to $1.2 billion in the last two years. Cuts from the federal government, whose support for Michigan public schools averages about 5 percent of local budgets, totaled another $20 million in fiscal year 1982.

POPULATION AND LABOR FORCE CHARACTERISTICS

Michigan's population grew by only four percent during the 1970's, while the nation's population increased by almost 11 percent, according to final 1980 census figures. The results placed Michigan's 1980 population at 9,258,344, an increase of 376,500 over the past decade. Between 1960 and 1970, the state's population grew by more than one million or 13.4 percent.

In Michigan, the marginal expansion in the population can be attributed to several factors. The continuing decline in the birth rate is one. Another factor reflects the reversal of the past pattern of young families migrating into the state in search of high-paying automotive or blue-collar industrial employment. Now young people are beginning to move to the Sunbelt in search of job opportunities and older persons are retiring to warmer climates in increasing numbers. In fact, Florida has now replaced Michigan as the nation's seventh largest state. Florida jumped from ninth to seventh place when its population soared more than 41 percent over the decade to 9,739,992 in 1980.

Migration to Suburbs Continues

While Michigan as a whole has been experiencing slow growth, its six largest cities have been losing population. Detroit, for instance, has dropped from 1.5 million residents in 1970 to less than 1.2 million in 1980, a loss of more than one-fifth. Flint, the state's fourth largest city, lost more than 17 percent of its population over the decade.

TABLE I
POPULATION DECLINES IN MICHIGAN'S LARGEST CITIES
1970-1980

	Population		1970-80 Change	
City	1970	1980	Number	Percent
Detroit	1,514,063	1,203,339	-310,724	-20.5%
Grand Rapids	197,649	181,843	- 15,806	- 8.0
Warren	179,260	161,134	- 18,126	-10.1
Flint	193,317	159,611	- 33,706	-17.4
Lansing	131,403	130,414	- 989	- 0.8
Livonia	110,109	104,814	- 5,295	- 4.8

Source: U.S. Department of Commerce, Bureau of the Census

Rapid Growth in Northern Lower Peninsula

The counties which grew the fastest in Michigan between 1970 and 1980 are centrally located in the northern Lower Peninsula. Kalkaska County more than doubled in population while Roscommon County increased by 65 percent. Livingston County, with a 70 percent expansion rate, is the only rapidly growing county not in the northern portion of the Lower Peninsula. Much of Livingston's attraction is that it offers rural living within commuting distance of three major metropolitan areas: Detroit, Flint and Lansing.

Although the fastest rates of growth occurred in counties in northern lower Michigan, expansion in absolute numbers of people continued to be concentrated in the southeastern corner of the state. Most of this population growth was in the suburban communities surrounding major urban centers. Oakland and Macomb counties, with gains of 105,600 and 69,100, respectively, recorded the largest resident population increases in the state. Livingston County ranked third with 41,300 additional people. Livingston is unique among the counties in that it not only increased rapidly in terms of absolute numbers but also had the second fastest growth rate.

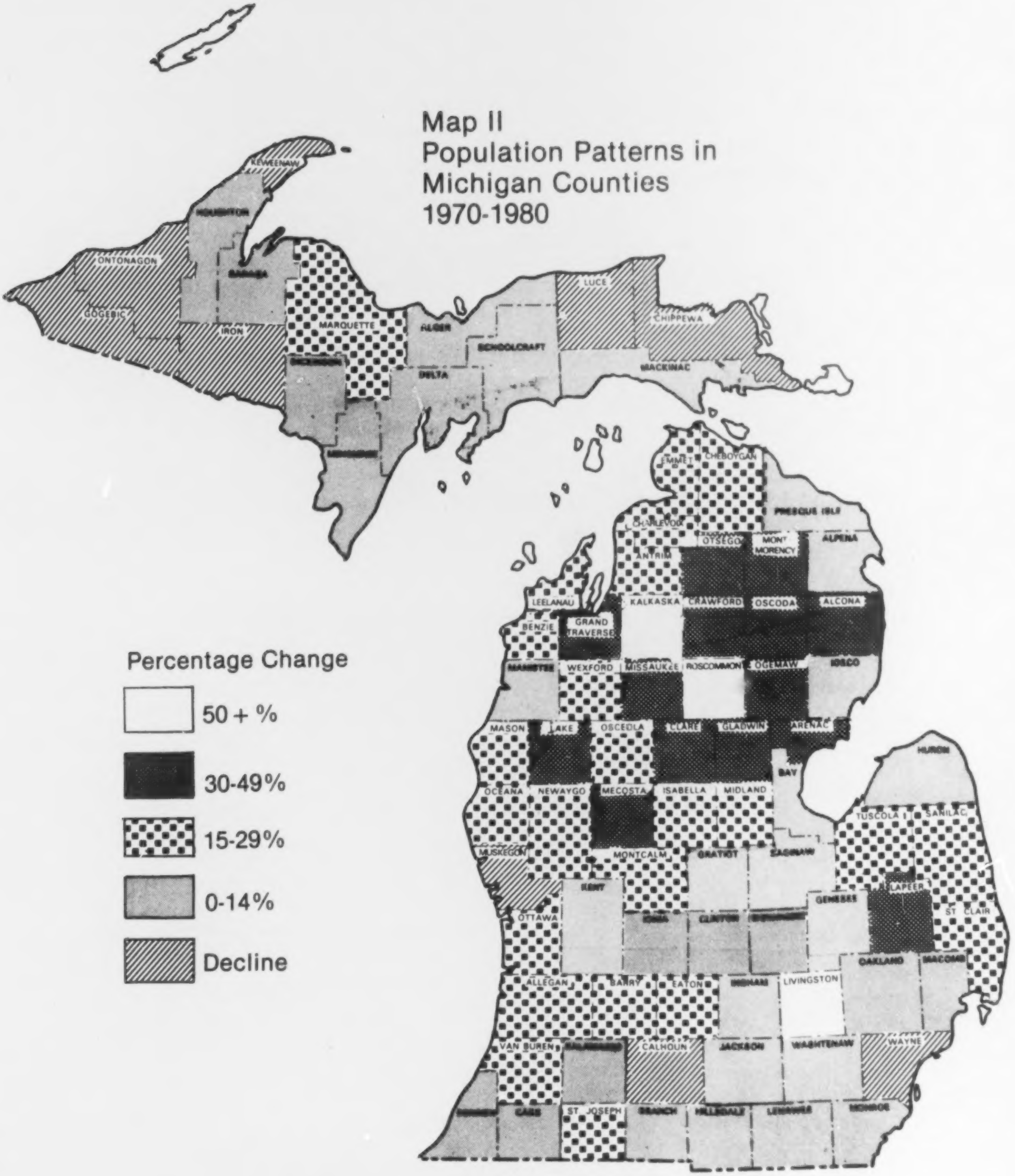
Population Growth Rate Will Continue to Slow

The growth rate of Michigan's population is expected to continue to slow during the 1980's. By 1983, the state's population is forecast to have only edged up by 71,000 or less than one percent to a level of 9,330,000. Females are anticipated to maintain their 51.2 percent share of the population but major changes will occur in the age distribution of Michigan residents.

Median Age Approaches 29 Years

The median age of the population in Michigan rose from 26.3 years in 1970 to 28.9 years in 1980. The increase was a result of declining fertility, aging of the "baby boom" cohorts, and rising longevity of the population. These trends are expected to continue in 1983. Less than one-quarter of the population will be under 14 years of age while almost one-third will be in the prime-working-age group (20-39 years) and one-tenth will be at least 65 years old.

Map II
Population Patterns in Michigan Counties 1970-1980


Percentage Change
50 + %
30-49%
15-29%
0-14%
Decline
KEWEENAW
HOUGHTON
ONTONAGON
GOGEBIC
IRON
MARQUETTE
ALGER
SCHOOLCRAFT
DELTA
LUCE
CHIPPEWA
MACKINAC
EMMET
CHEBOYGAN
PRESQUE ISLE
CHARLEVOIX
OTSEGO
MONT MORENCY
ALPENA
ANTRIM
LEELANAU
KALKASKA
CRAWFORD
OSCODA
ALCONA
BENZIE
GRAND TRAVERSE
MANISTEE
WEXFORD
MISSAUKEE
ROSCOMMON
OGEMAW
IOSCO
MASON
LAKE
OSCEOLA
CLARE
GLADWIN
ARENAC
HURON
BAY
OCEANA
NEWAYGO
MECOSTA
ISABELLA
MIDLAND
TUSCOLA
SANILAC
MUSKEGON
MONTCALM
GRATIOT
SAGINAW
LAPEER
KENT
GENESEE
ST CLAIR
OTTAWA
CLINTON
OAKLAND
MACOMB
ALLEGAN
BARRY
EATON
INGHAM
LIVINGSTON
VAN BUREN
CALHOUN
JACKSON
WASHTENAW
WAYNE
CASS
ST JOSEPH
BRANCH
HILLSDALE
LENAWEE
MONROE

Source: U.S. Department of Commerce, Bureau of the Census.

Comparability of Census Data by Race/Spanish Origin

The 1980 figures for some racial groups are not strictly consistent with 1970 totals because of significant changes in the way persons of Spanish origin reported their race. In 1970, persons who marked "other" and wrote in a Spanish designation such as Mexican, Venezuelan, Latino, were classified as "white." In 1980, such persons were not reclassified but remained in the "other" races category. Consequently, the proportion of the Spanish origin population classified as "other" increased considerably between 1970 and 1980. Nationally, in 1970, only one percent of the Spanish origin persons were classified as "other" and 93 percent as "white." In 1980, 40 percent reported their race as "other" while 56 percent reported as "white."

The 1980 count for Asians and Pacific Islanders reflects a high level of immigration during the 1970's, as well as a number of changes in census procedures. The categories of Asian and Pacific Islander groups provided on the 1980 questionnaire were expanded over those in 1970 to include four additional groups, Asian Indian, Vietnamese, Guamanian and Samoan. Asian Indians were classified as "white" in 1970 but were included in the "Asian and Pacific Islander" category in 1980.

Based on these definitional changes in the enumeration process, minorities in Michigan are expected to total more than 1.5 million in 1983 or 16.8 percent of the total population, an increase from 13.2 percent in 1970. The largest minority group, blacks, are forecast to number about 1.2 million in 1983 or 13.0 percent of the population, up from 11.2 percent in 1970. Similarly, the remaining minority groups will also expand their share of the population. By 1983, persons of Spanish origin are anticipated to comprise 1.8 percent of the population; persons of "other" races, 1.0 percent; Asians and Pacific Islanders, 0.6 percent; and American Indians, 0.4 percent.

TABLE II
GENERAL POPULATION CHARACTERISTICS
STATE OF MICHIGAN
FISCAL YEAR 1983

	Number	Percent
Total	9,329,667	100.0%
Male	4,548,679	48.8
Female	4,780,988	51.2
Age Group		
0-13	2,064,818	22.1
14-15	343,306	3.7
16-19	729,281	7.8
20-21	365,154	3.9
22-24	534,920	5.7
25-29	812,905	8.7
30-34	713,597	7.6
35-39	568,718	6.1
40-44	468,157	5.0
45-49	448,987	4.8
50-54	489,182	5.2
55-59	474,955	5.1
60-64	396,338	4.2
65-69	321,936	3.5
70-74	238,960	2.6
75+	358,453	3.8
Race/Ethnic Group		
White	7,929,570	85.0
Black	1,207,944	13.0
American Indian or Alaskan Native	40,350	0.4
Asian or Pacific Islander	57,172	0.6
Other Races	94,631	1.0
Hispanic	163,642	1.8

Source: Michigan Employment Security Commission
Research and Statistics Division

Labor Force Participation Rates Change

The labor force is defined as the sum of all employed persons and all unemployed individuals who are actively seeking work. Thus, a person in either of these categories is defined as a participant in the labor force. The rate of labor force participation is the percentage which these individuals represent of the labor-force-age population (16+ years). In Michigan, the labor force participation rate gradually increased from 61 percent in 1970 to 64 percent in 1981. It is expected to edge down to 63 percent in fiscal year 1983 as continued high unemployment in the state causes discouraged jobseekers to drop out of the labor force.

Michigan's labor force is expected to average 4,330,000 in fiscal year 1983, an increase of 21.5 percent since 1970. This labor force expansion will result not only from growth in the working-age population but also from changing patterns in labor force participation. The basic assumptions concerning future labor force participation are as follows:

* Labor force participation rates of teenagers of both sexes will continue to rise in the 1980's. In Michigan, the teenage participation rate climbed from 56 percent in 1970 to 65 percent in 1979. In 1980, poor economic conditions caused their participation rate to fall sharply to 60 percent before edging up to 61 percent in 1981.

* The labor force activity of women, particularly those in the central-age group, will continue to increase but at a slower pace. In Michigan, the female participation rate rose from 43 percent in 1970 to 51 percent in 1981.

* For men, labor force participation will continue to edge downward. In Michigan, the male participation rate fell from 80 percent in 1970 to 78 percent in 1981.

* Labor force participation will increase faster for whites than nonwhites. In Michigan, white participation climbed from 61 percent in 1970 to 65 percent in 1981. Over the same period of time, nonwhite participation has fluctuated with the state's economic cycles. Nonwhite participation was estimated at 64 percent in 1970. Recessionary influences caused it to fall to a low of about 56 percent in the mid-1970's before again climbing to a peak level of 65 percent at the end of the decade. Double-digit unemployment contributed to another nose-dive in the nonwhite participation rate to 58 percent in 1980 and an even lower 57 percent in 1981.

UNEMPLOYMENT DEVELOPMENTS AND OUTLOOK

During the 1970's, Michigan's unemployment rate averaged 8.0 percent, up substantially from the 1960's average of 5.4 percent. Although the U.S. rate was also higher during the 1970's, averaging 6.2 percent, it still was well below Michigan's rate. The slowdown in 1970, the oil embargo in late 1973, the 1974-75 recession and the concern in 1979 over the availability and rising price of gasoline, each had a dramatic impact on the state's jobless situation because of Michigan's sensitivity to national economic fluctuations. In each case, auto sales slumped, resulting in employment reductions throughout the state's economy.

Current Trends

Unemployment rate increases were widespread among the states in 1980 and 1981. High interest rates continued to plague the housing and automobile industries and the weakness in these two critical industries began to spread to related businesses as 1981 progressed. Product orders were reduced leading to increased inventories, sharp cutbacks in production, and eventually to increased layoffs and other job losses. During 1981, 17 states had jobless rates higher than the national average of 7.6 percent. These states were primarily concentrated in the industrialized North and South Central regions.

Jobless Rate Highest in Nation for Two Consecutive Years

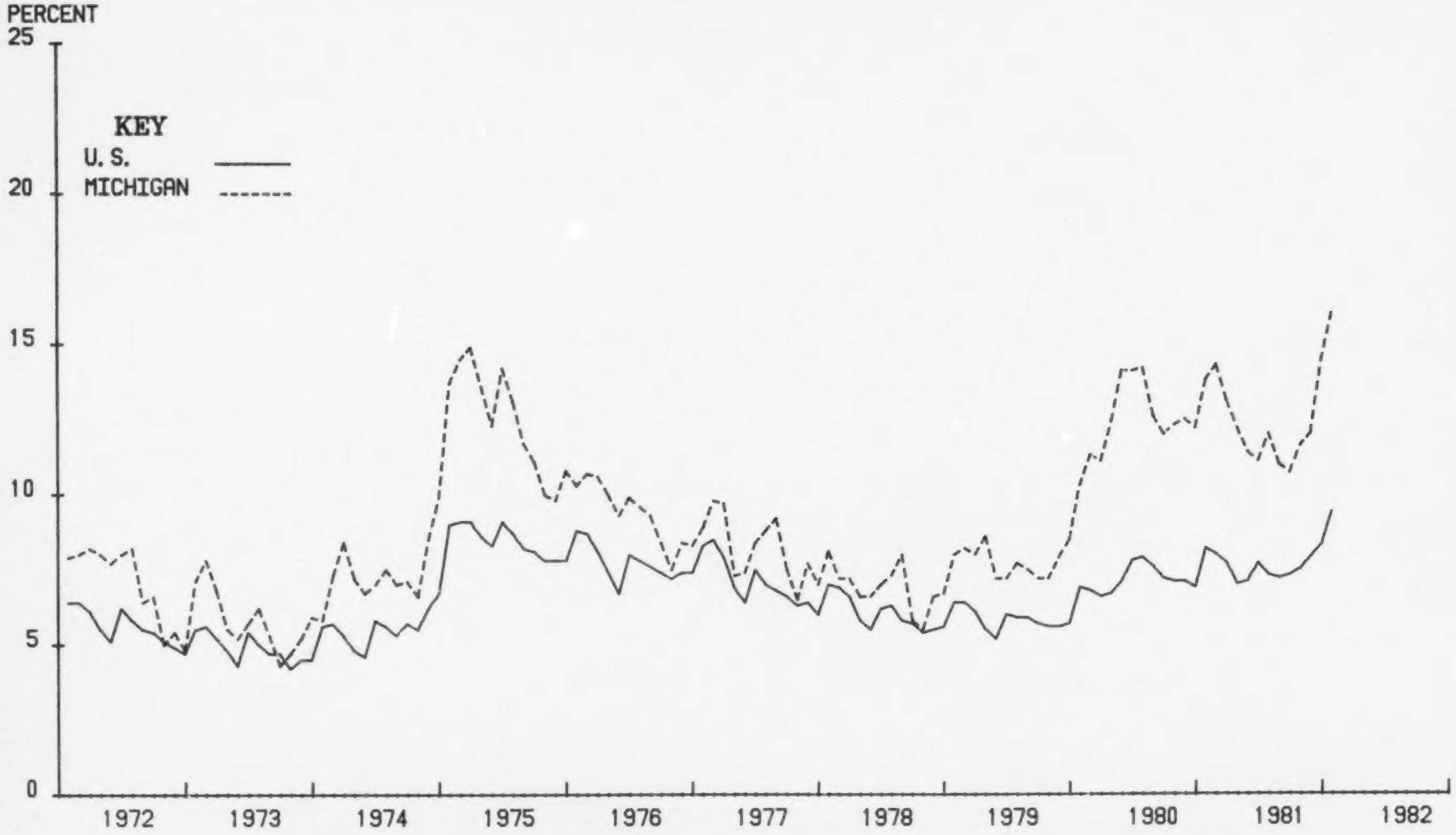
For the second straight year, Michigan continued to have the highest jobless rate in the nation with 12.3 percent of its labor force unemployed or more than one-half million workers. Four other states (Alabama, Indiana, Oregon and West Virginia) had rates of about 10.0 percent or more in 1981. The lowest rates were recorded in the West North Central and West South Central farm belt states. Oklahoma, with 3.6 percent of its labor force unemployed, was the only state to record a rate below 4 percent in 1981.

Table III
Unemployment Rates; U.S. and Michigan; 1970-81

	United States	Michigan
1970	4.9%	6.7%
1971	5.9	7.6
1972	5.6	7.0
1973	4.9	5.9
1974	5.6	7.4
1975	8.5	12.5
1976	7.7	9.4
1977	7.1	8.2
1978	6.1	6.9
1979	5.8	7.8
1980	7.1	12.4
1981	7.6	12.3

Source: U.S. Department of Labor, Bureau of Labor Statistics

UNEMPLOYMENT RATES
(UNADJUSTED)
U.S. AND MICHIGAN



SOURCE: MICHIGAN EMPLOYMENT SECURITY COMMISSION

TABLE IV
CIVILIAN LABOR FORCE, EMPLOYMENT AND UNEMPLOYMENT ESTIMATES

STATE OF MICHIGAN
1981

	Total	16-17	18-19	20-24	25-44	45-64	65+
Civilian Labor Force	4,301	168	249	642	2,031	1,125	86
Employment	3,773	125	186	514	1,808	1,058	82
Unemployment	528	43	63	128	223	67	4
Rate	12.3%	25.6%	25.3%	19.9%	11.0%	6.0%	4.7%
Male							
Civilian Labor Force	2,518	89	131	360	1,192	691	55
Employment	2,213	66	96	280	1,066	653	52
Unemployment	305	23	35	80	126	38	3
Rate	12.1%	25.8%	26.7%	22.2%	10.7%	5.5%	5.5%
Female							
Civilian Labor Force	1,783	79	118	282	839	434	31
Employment	1,560	58	91	234	742	405	30
Unemployment	223	21	27	48	97	29	1
Rate	12.5%	26.6%	22.9%	17.0%	11.6%	6.7%	3.2%
White							
Civilian Labor Force	3,835	157	226	566	1,792	1,012	82
Employment	3,427	120	177	469	1,626	957	78
Unemployment	408	37	49	97	166	55	4
Rate	10.6%	23.6%	21.7%	17.1%	9.3%	5.4%	4.9%
Nonwhite							
Civilian Labor Force	466	11	23	75	238	114	5
Employment	346	4	10	45	181	102	4
Unemployment	120	7	13	30	57	12	*
Rate	25.8%	63.6%	56.5%	40.0%	24.0%	10.5%	xxx

* Nondisclosure - Less than 1,000

Notes: Data in thousands; not population-controlled.
Totals may not equal summations because of rounding.

Source: Current Population Survey

REASONS FOR UNEMPLOYMENT

Job Loss

The Bureau of Labor Statistics classifies jobseekers into four categories based on reasons for unemployment. The first group is identified as job losers. This group consists of persons whose employment ended involuntarily and who immediately began looking for work. During economic contractions, there are,of course, sharp increases in job loss unemployment, especially due to layoffs. Job losers comprise the largest part of the unemployed. They accounted for 62.4 percent of the unemployed in Michigan in 1980, a significant increase from their 48.5 percent share in 1979. In 1981, the job losers share of total unemployment remained at a relatively high level of 55.3 percent. Historically, the percentage of job losers usually drops to around 40 percent during recoveries. Two-thirds of the job losers were adult males.

Job Leaving

Job leavers make up another portion of the unemployed. This group consists of individuals who resigned or otherwise voluntarily terminated their employment and immediately began looking for work. The proportion of job leavers tends to fluctuate with the business cycle. In other words, people are more likely to quit a job when times are good and jobs are plentiful. In 1981, job leavers accounted for 6.3 percent of the unemployed in Michigan, as compared with 7.1 percent in 1980 and 13.1 percent in 1979. More than half of the unemployed job leavers were adult females. Teenagers, of both sexes, comprised about 12 percent of all job leavers.

Re-entry

Jobseekers may also be classified as re-entrants. This group consists of individuals who have previously worked at a full-time job lasting two weeks or longer but have been temporarily out of the labor force. In Michigan, re-entrants comprised 24.8 percent of all jobseekers in 1981. Females (20+ years) accounted for about 52 percent of this second largest group of jobseekers in the state. Part of the reason for this high proportion is the large number of women who return to the labor force after leaving temporarily for child-bearing or family responsibilities.

New Entry

New entrants comprise the smallest category of jobseekers. This group consists of persons who have never worked at a full-time job lasting two weeks or longer. New entrants accounted for 13.6 percent of the unemployed in 1981, up from 8.4 percent in 1980, as more secondary wage earners entered the job market to supplement family income. Three-fourths of these new entrants to the labor market were teenagers (16-19 years) who have a more difficult time finding a job because of their relatively lower skill levels and lack of experience.

TABLE V
Reasons for Unemployment by Sex and Age
State of Michigan
1981

	Total Persons	Males 20+	Females 20+	Both Sexes 16-19
Total Unemployed (000's)	528	305	223	106
Percent	100.0%	100.0%	100.0%	100.0%
Job Losers	55.3	78.8	45.5	15.7
Layoffs	29.2	43.6	23.0	5.6
All Other	26.1	35.2	22.5	10.1
Job Leavers	6.3	4.8	10.1	3.7
Reentrants	24.8	14.0	38.8	27.8
New Entrants	13.6	2.4	5.6	52.8

Source: U.S. Department of Labor, Bureau of Labor Statistics
Current Population Survey for Michigan

Discouraged Workers Hit Record Level

The health of the economy influences the number of people who report that they want a job but are not looking for one because they believe no work is available. These "discouraged workers" rose by 140,000 in the first quarter of 1982 to 1.3 million nationwide, the highest level recorded since the series began in 1967. The increase was particularly sharp among blacks, who historically have accounted for a disproportionately large share of the discouraged workers. Assuming Michigan has the same share of discouraged workers as it does of total unemployment in the U.S., it can be estimated that there are currently almost 100,000 discouraged workers in the state. Additionally, during a recession, employers frequently reduce hours where possible before laying off employees. Persons on such shortened workweeks are termed involuntary part-time workers. They, along with discouraged workers, are not reflected in the official count of unemployment, although information on both groups is important in achieving a full appreciation of the nature and magnitude of the underutilization of human resources.

Involuntary Part-Time Workers Increase

Nonagricultural workers involuntarily on part-time schedules totaled almost 195,000 or 5.3 percent of Michigan's "at-work" population in 1980. Assuming the state will follow the same pattern as the U.S. when Michigan data are available for 1981, it can be expected that state residents involuntarily working less than 35 hours per week will number at least 235,000 or 6.2 percent of all workers. There has been a growing tendency in recent years for employers to keep workers on a shortened workweek for a longer spell than in earlier years. Also, the proportion of voluntary part-timers who reported they could only find part-time work has continued to grow in recent years, as it has for the last decade.

TABLE VI
DISTRIBUTION OF PART-TIME WORKERS BY SEX, RACE AND AREA MICHIGAN, DETROIT SMSA AND BALANCE OF MICHIGAN - 1980

		Part-Time Workers					
		Total		For Economic Reasons		Voluntary	
Sex/Race/Area	Total Employed	Number	Percent	Number	Percent	Number	Percent
Total, Michigan	3,643,100	773,300	21.2%	194,800	5.3%	578,500	15.9%
Detroit SMSA	1,751,100	348,100	19.9	83,400	4.8	264,700	15.1
Balance	1,892,000	425,200	22.5	111,400	5.9	313,800	16.6
Male, Michigan	2,315,200	266,500	11.5	90,800	3.9	175,700	7.6
Detroit SMSA	1,115,400	114,900	10.3	40,200	3.6	74,700	6.7
Balance	1,199,800	151,600	12.6	50,600	4.2	101,000	8.4
White	2,056,400	246,200	12.0	82,700	4.0	163,500	8.0
Detroit SMSA	927,900	100,400	10.8	32,800	3.5	67,600	7.3
Balance	1,128,500	145,800	12.9	49,900	4.4	95,900	8.5
Nonwhite	258,800	20,400	7.9	8,100	3.1	12,300	4.8
Detroit SMSA	187,400	14,500	7.7	7,400	3.9	7,100	3.8
Balance	71,400	5,900	8.3	700	1.0	5,200	7.3
Female, Michigan	1,327,900	506,800	38.2	104,000	7.8	402,800	30.3
Detroit SMSA	635,700	233,200	36.7	43,100	6.8	190,100	29.9
Balance	692,200	273,600	39.5	60,900	8.8	212,700	30.7
White	1,131,600	467,000	41.3	89,900	7.9	377,100	33.3
Detroit SMSA	489,100	204,600	41.8	34,300	7.0	170,300	34.8
Balance	642,500	262,400	40.8	55,600	8.7	206,800	32.2
Nonwhite	196,300	39,800	20.3	14,100	7.2	25,700	13.1
Detroit SMSA	144,600	28,600	19.8	8,800	6.1	19,800	13.7
Balance	51,700	11,200	21.7	5,300	10.3	5,900	11.4

SOURCE: Current Population Survey - 1980 Detailed Characteristics Michigan and Detroit SMSA United States Department of Labor - Bureau of Labor Statistics

NOTE: Total employment data disaggregation not available for 1981 CPS at time of publication.

CHARACTERISTICS OF THE INSURED UNEMPLOYED

Data on the characteristics of the insured unemployed are available from information collected on claimants drawing regular unemployment benefits. During calendar year 1981, nonwhites comprised 13 percent of the claimants and females, 34 percent. Almost one-third of the insured unemployed had been jobless for 15 weeks or longer, and another 39 percent were out of work for 5-14 weeks.

Generally, the likelihood of a person drawing unemployment benefits diminishes with age as most short-term layoffs affect those with lowest seniority. However, as Michigan's economy weakened in 1979, the average age of the insured unemployed began to rise. By 1980, claimants between the ages of 25 and 34 years comprised over 33 percent of all persons drawing regular benefits. In 1981, the proportion edged up to 34 percent, significantly higher than the share for jobless workers under the age of 25 years. In fact, young adults (16-24 years) represented the only age group whose proportion of the insured unemployed declined between 1980 and 1981. Their share dropped from 29 percent in 1980 to 22 percent in 1981. The remaining age categories all increased their share of the insured unemployed by one to two percentage points.

TABLE VII
CHARACTERISTICS OF INSURED UNEMPLOYED BY RACE, AGE AND SEX; STATE OF MICHIGAN; 1981

	Total		Male		Female	
Race and Age	Number	Percent	Number	Percent	Number	Percent
Total	194,578	100.0%	128,597	100.0%	65,981	100.0%
White	168,416	86.6	111,633	86.8	56,783	86.1
Nonwhite	26,162	13.4	16,964	13.2	9,198	13.9
Under 25	42,588	21.9	28,517	22.2	14,071	21.3
25-34	66,541	34.2	45,669	35.5	20,872	31.7
35-44	36,658	18.8	23,019	17.9	13,639	20.7
45-54	26,118	13.4	16,321	12.7	9,797	14.8
55-64	19,051	9.8	12,637	9.8	6,414	9.7
65+	3,622	1.9	2,434	1.9	1,188	1.8

TABLE VIII
DURATION OF UNEMPLOYMENT BY SEX STATE OF MICHIGAN; 1981

	Total		Male		Female	
Weeks of Unemployment	Number	Percent	Number	Percent	Number	Percent
Total	194,578	100.0%	128,597	100.0%	65,981	100.0%
1-2 Weeks	35,782	18.4	24,841	19.3	10,941	16.6
3-4 Weeks	23,495	12.1	16,215	12.6	7,280	11.0
5-14 Weeks	75,936	39.0	49,709	38.7	26,227	39.7
15+ Weeks	59,365	30.5	37,832	29.4	21,533	32.6

Source: Michigan Employment Security Commission
Bureau of Research and Statistics - ES-203 Report

TABLE IX
CIVILIAN LABOR FORCE, EMPLOYMENT AND UNEMPLOYMENT ESTIMATES

STATE OF MICHIGAN
FISCAL YEAR 1983

	Total	16-17	18-19	20-24	25-44	45-64	65+
Civilian Labor Force	4,330	169	251	646	2,044	1,133	87
Employment	3,791	125	187	515	1,816	1,065	83
Unemployment	539	44	64	131	228	68	4
Rate	12.4%	26.0%	25.5%	20.3%	11.2%	6.0%	4.6%
Male							
Civilian Labor Force	2,535	90	132	362	1,200	696	55
Employment	2,224	67	96	280	1,072	657	52
Unemployment	311	23	36	82	128	39	3
Rate	12.3%	25.6%	27.3%	22.7%	10.7%	5.6%	5.5%
Female							
Civilian Labor Force	1,795	79	119	284	844	437	32
Employment	1,567	58	91	235	744	408	31
Unemployment	228	21	28	49	100	29	1
Rate	12.7%	26.6%	23.5%	17.3%	11.8%	6.6%	3.1%
White							
Civilian Labor Force	3,861	158	228	571	1,804	1,018	82
Employment	3,444	121	177	471	1,634	962	79
Unemployment	417	37	51	100	170	56	3
Rate	10.8%	23.4%	22.4%	17.5%	9.4%	5.5%	3.7%
Nonwhite							
Civilian Labor Force	469	11	23	75	240	115	5
Employment	347	4	10	44	182	103	4
Unemployment	122	7	13	31	58	12	*
Rate	26.0%	63.6%	56.5%	41.3%	24.2%	10.4%	xxx

* Nondisclosure - Less than 1,000

Notes: Data in thousands; not population-controlled.
Totals may not equal summations because of rounding.

Source: Michigan Employment Security Commission
Bureau of Research and Statistics

UNEMPLOYMENT OUTLOOK

Unemployment in Michigan is expected to climb from 12.2 percent in fiscal year 1981 to 14.0 percent in fiscal year 1982 as the state continues to reel from the effects of declining car sales and high interest rates. By fiscal year 1983, the economy is anticipated to stabilize somewhat with unemployment dropping to 539,000 or 12.4 percent. Although the state's economy is expected to improve somewhat by fiscal year 1983, the effects of double-digit joblessness for four consecutive years will undoubtedly be felt well into the mid-1980's.

Youth Unemployment

The employment situation for teenagers (16-19 years) continues to worsen. Their unemployment rate has shown a step-like pattern of deterioration since 1979 when 15.8 percent of all Michigan youth in the job market were out of work. As the recession gained momentum in 1980, teenage unemployment in the state jumped to 21.0 percent. By 1981, the teenage rate of 25.4 percent was the highest every recorded, almost a full percentage point above that reached during the 1975 recession. By fiscal year 1983, youth unemployment is expected to average 108,000 or 25.7 percent, slightly higher than the current level. Their rate will be more than 2.3 times that for adults (20+ years). Nonwhite teenagers will continue to experience the highest joblessness as their rate is expected to average 58.8 percent in FY 1983, a phenomenal 25 percentage points above their 1979 rate.

Minority Unemployment

Similar to teenagers, the minority unemployment problem is one of increasing concern both in the state and nation. To date, substantial federal job efforts have had limited impact on reducing the numbers of minorities out of work. Although at times the figures decline somewhat, they remain consistently high. There are many well-documented barriers to employment of minorities. The major ones include discrimination, and lack of education, skills or transportation.

In 1981, an average of 120,000 nonwhites in Michigan were unable to find jobs. Their unemployment rate, at 25.8 percent, was 2.5 times the white jobless rate. Perhaps the best indication of the problems faced by nonwhites, however, is that they accounted for only 11 percent of the statewide labor force in 1981, but almost 23 percent of the unemployed. By fiscal year 1983, it is estimated that the nonwhite jobless rate will edge up to 26.0 percent compared with 10.8 percent for whites.

Female Unemployment

Unemployment is a very crucial and persistent problem for female workers. The average rate of unemployment has been higher for women than men almost every year since 1950. This has been true in Michigan as well as nationwide. The exception to this is that male unemployment increases faster in recessionary periods than does female joblessness, which also climbs but not as fast. For example, in Michigan during the 1975 recession, male unemployment climbed to 12.5 percent while female unemployment increased to 12.4 percent. Similarly, in 1980, the male jobless rate of 13.6 percent topped the female rate of 11.1 percent, an unusual labor market occurrence.

The greater increase in unemployment among men in 1980 was primarily due to their predominance in industries experiencing extensive job cutbacks, such as construction and auto manufacturing. The male jobless rate continued to be higher than the female rate throughout the first half of 1981, but by year's end, the historical disparity had returned. For the entire year of 1981, unemployment among women averaged 12.5 percent versus 12.1 percent for men. About the same relationship is expected to hold for the FY 1983 planning year with female joblessness edging up to 12.7 percent while the male rate climbs by a similar amount to 12.3 percent.

Various reasons account for the difference in unemployment rates between men and women. First, the educational backgrounds of females do not adequately prepare them to compete for the better jobs in the economy. Secondly, higher unemployment among women also stems from their different patterns of labor force entry and reentry. These patterns seem to be changing, however, as female workers display a heightened attachment to the labor force.

EMPLOYMENT DEVELOPMENTS AND OUTLOOK BY INDUSTRY

Wage and salary employment is an estimate of nonagricultural jobs based on a monthly survey of private employers and government units located in Michigan. The wage and salary estimate differs from total employment in that it does not include farm workers, domestics, self-employed persons or unpaid family workers. It should also be noted that total employment is an estimate of working people, by place of residence, whereas wage and salary employment is a count of jobs by place of work.

Nonagricultural jobs declined substantially across the state between 1979 and 1981. Wage and salary employment totaled 3,377,000 in 1981, down 259,300 or nearly seven percent from the 1979 average of 3,637,000. The reduction occurred primarily as a result of sharp declines in the sales of domestically produced automobiles and the slowdown in construction activity. Wage and salary employment during 1981 stood at its lowest level since 1976. Nonagricultural payrolls averaged 3,442,800 during 1980.

Manufacturing Jobs

Although Michigan still is a major industrial center, manufacturing's share of total wage and salary employment has dropped from 32 percent in 1979 to 29 percent in 1981. Employment in the manufacturing sector, at 977,700 during 1981, was the lowest since 1962 when it averaged 943,700. Jobs in this sector fell sharply during the past two years mainly due to reduced automobile production. Between 1979 and 1981, manufacturing employment declined by 182,400 or nearly sixteen percent. The majority of these job losses were concentrated in predominantly auto-related industries such as transportation equipment (-68,600) and metals (-57,700). All other manufacturing industries also recorded job reductions between 1979 and 1981. A comparison of manufacturing employment between 1980 and 1981 showed a drop of 21,200 over the year. Manufacturing payrolls averaged 1,160,100 and 998,900 during 1979 and 1980, respectively.

Nonmanufacturing Jobs

The largest numbers of jobs in Michigan are concentrated in the nonmanufacturing sector. Employment in this sector averaged 1,782,300 in 1981, representing almost 53 percent of total wage and salary employment, up from 51 percent in 1979. Most of the jobs in the nonmanufacturing sector are concentrated in services and trade (wholesale and retail). Together, these two industrial groupings accounted for three-fourths of all nonmanufacturing jobs in 1981.

Between 1979 and 1981, nonmanufacturing employment dropped by 73,600 or nearly four percent in Michigan. Most of the decline occurred in trade (-48,000), construction (-36,500) and utilities (-15,800). Construction lost about one-fourth of its jobs during 1980 and 1981 as a result of higher mortgage interest rates and a general slowdown in the state's economy. Part of the job losses in other nonmanufacturing industries were offset by a gain of 28,300 in services over the past two years. Services was the only industry in the state in which employment grew between 1979 and 1981. Nonmanufacturing employment averaged 1,855,900 and 1,816,100 during 1979 and 1980, respectively.

Government Jobs

Government employment averaged 617,700 in 1981, representing slightly more than 18 percent of total wage and salary jobs. For the first time since MESC began keeping records, government employment showed a yearly decline (-10,100) between 1980 and 1981. The drop was caused by stringent budgets and severe staffing cutbacks as a result of falling revenues, particularly at the state and local levels. All three levels of government (federal, state and local) recorded a year-to-year decline during 1981. Public sector jobs totaled 621,000 and 627,800 in 1979 and 1980, respectively.

TABLE X

PERCENTAGE DISTRIBUTION OF WAGE AND SALARY EMPLOYMENT
STATE OF MICHIGAN
1979-1981
(Data in Thousands)

	1981		1980		1979	
	Number	Percent	Number	Percent	Number	Percent
Wage and Salary Empl.	3377.7	100.0%	3442.8	100.0%	3637.0	100.0%
Manufacturing	977.7	28.9	998.9	29.0	1160.1	31.9
Durable Goods	780.5	23.1	795.0	23.1	935.1	25.7
Metal Products	178.6	5.3	185.3	5.4	236.3	6.5
Transportation Equip.	339.6	10.1	340.2	9.9	408.2	11.2
Nondurable Goods	97.2	5.8	203.9	5.9	225.0	6.2
Nonmanufacturing	1782.3	52.8	1816.1	52.8	1855.9	51.0
Construction	103.0	3.0	116.8	3.4	139.5	3.8
Trade	713.3	21.1	733.6	21.3	761.3	20.9
Services	655.1	19.4	644.5	18.7	626.8	17.2
Government	617.7	18.3	627.8	18.2	621.0	17.1

Source: Michigan Employment Security Commission
Bureau of Research and Statistics

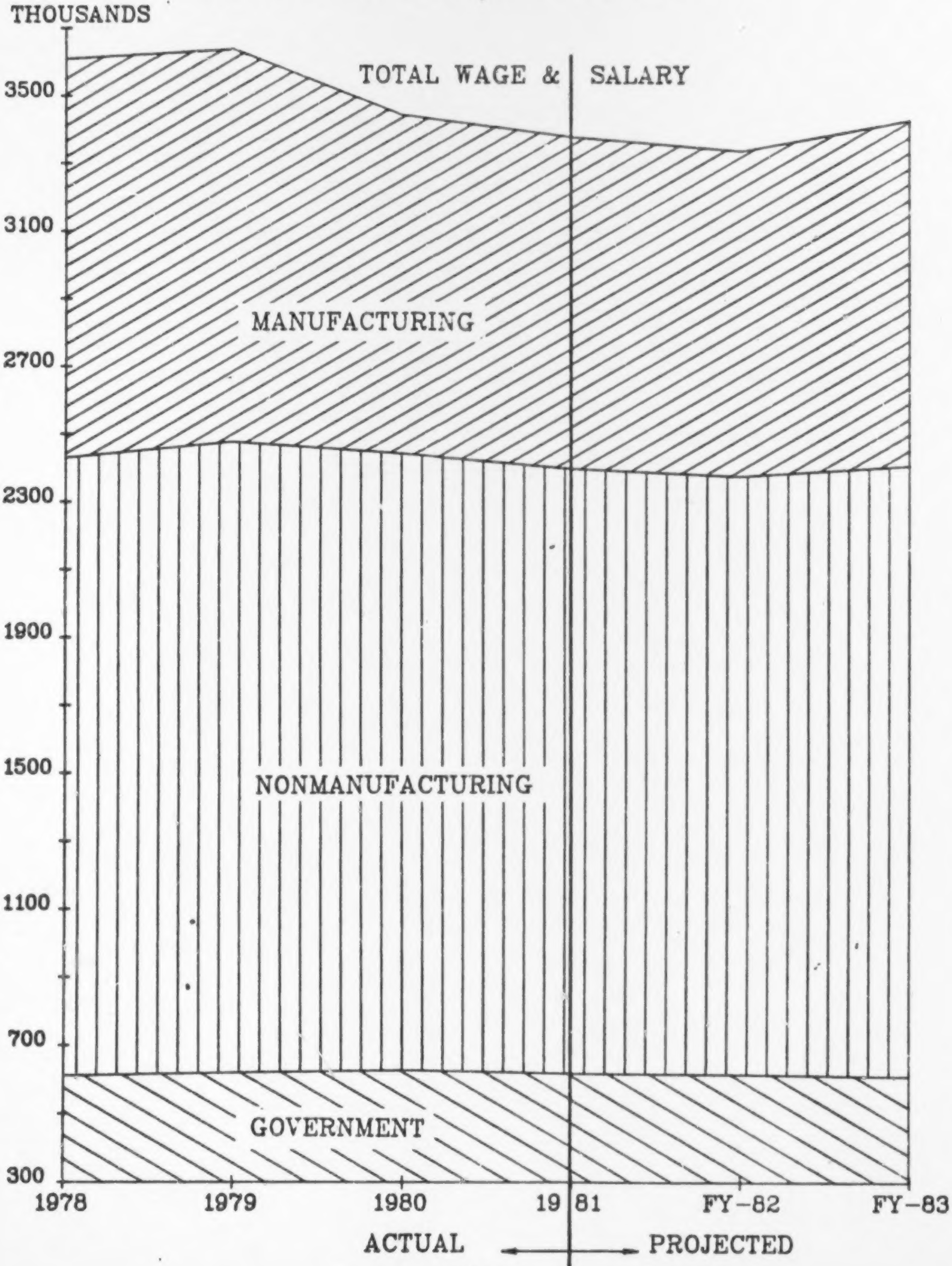
TABLE XI
WAGE AND SALARY EMPLOYMENT
STATE OF MICHIGAN
1979-1981

				Change From	
	1981	1980	1979	1980-1981	1979-1981
Wage and Salary Employment (000's)	3377.7	3442.8	3637.0	-65.1	-259.3
Manufacturing Industries	977.7	998.9	1160.1	-21.2	-182.4
Durable Goods Industries	780.5	795.0	935.1	-14.5	-154.6
Lumber and Wood Products	10.7	11.6	14.1	- 0.9	- 3.4
Furniture and Fixtures	22.7	23.0	23.0	- 0.3	- 0.3
Metal Industries	178.6	185.3	236.3	- 6.7	- 57.7
Primary Metal Products	64.5	67.3	85.5	- 2.8	- 21.0
Fabricated Metal Products	114.1	118.0	150.8	- 3.9	- 36.7
Nonelectrical Machinery	157.1	158.4	167.2	- 1.3	- 10.1
Electrical Machinery	32.8	34.9	41.9	- 2.1	- 9.1
Transportation Equipment	339.6	340.2	408.2	- 0.6	- 68.6
Motor Vehicles & Equipment	324.2	326.3	392.7	- 2.1	- 68.5
Other Trans. Equipment	15.4	13.9	15.5	- 1.5	- 0.1
Other Durable Goods	39.0	41.6	44.5	- 2.6	- 5.5
Nondurable Goods Industries	197.2	203.9	225.0	- 6.7	- 27.8
Food and Kindred Products	45.9	48.8	52.1	- 2.9	- 6.2
Textile Mill Products & Apparel	19.4	19.2	25.8	+ 0.2	- 6.4
Paper and Allied Products	21.6	21.6	23.8	0.0	- 2.2
Printing, Publishing & Allied	32.5	33.2	34.1	- 0.7	- 1.6
Chemicals, Petroleum & Related	46.1	47.5	47.8	- 1.4	- 1.7
Other Nondurable Goods	31.7	33.6	41.4	- 1.9	- 9.7
Nonmanufacturing Industries	1782.3	1816.1	1855.9	-33.8	- 73.6
Construction	103.0	116.8	139.5	-13.8	- 36.5
Trans., Commun. & Utilities	144.8	152.2	160.6	- 7.4	- 15.8
Wholesale Trade	158.6	161.5	170.4	- 2.9	- 11.8
Retail Trade	554.7	572.1	590.9	-17.4	- 36.2
Finance, Real Estate & Insurance	154.0	156.5	154.5	- 2.5	- 0.5
Service	655.1	644.5	626.8	+10.6	+ 28.3
Mining	12.1	12.5	13.2	- 0.4	- 1.1
Government	617.7	627.8	621.0	-10.1	- 3.3
Federal	56.5	58.2	56.7	- 1.7	- 0.2
State	148.7	152.3	147.7	- 3.6	+ 1.0
Local	412.5	417.3	416.6	- 4.8	- 4.1

Source: Michigan Employment Security Commission
Bureau of Research and Statistics

MICHIGAN

WAGE & SALARY EMPLOYMENT



Short-Term Industry Outlook

Total wage and salary employment is expected to grow by 3.5 percent from 1981 to 1983. The upturn in nonagricultural jobs is expected to begin during the second half of 1982 and continue through 1983. The forecast is based on the assumption that U.S. automobile sales will again climb over the 10 million mark during 1983. The increase in automobile sales will result mainly from a slowdown in auto-operating costs and a smaller rise in car prices due to wage concessions given by the auto workers. The economy will also improve beginning with the second half of 1982 due to increased consumer spending as a result of federal income tax cuts and lower inflation rates. Total wage and salary jobs are expected to average 3,494,300 during 1983, an increase of 116,600 over 1981.

The majority of the job gains are expected to occur in the manufacturing sector primarily as a result of increased automobile production. Employment in the manufacturing sector is expected to jump 75,600 or nearly 8 percent from 1981 to total 1,053,300 in 1983. However, it will stay well below the levels reached in 1978-79.

The largest job gains between 1981 and 1983 are expected to occur in auto-related industries such as transportation equipment (+35,200), metals (+18,000) and textile mill products and apparel (+2,400). Non-electrical machinery, food and miscellaneous nondurable industries are also expected to grow significantly during the latter part of 1982 and during 1983. Jobs in the durable and nondurable industries are expected to average 843,400 and 209,900, respectively, during 1983.

A recovery in the nonmanufacturing sector is also expected to begin during the second half of 1982 and continue through 1983. Nonmanufacturing employment will average 1,833,000 during 1983, nearly three percent or 50,700 more than in 1981. Most of the increase, about 70 percent, will occur in the fast-growing service industries (+35,900). Compared with 1981, jobs are also expected to be higher in construction (+5,000), retail trade (+5,300) and finance, real estate and insurance (+4,000) in 1983. Construction jobs, projected at 108,000 in 1983, will still remain considerably below the 139,500 level reached during 1979.

The decline in government employment which occurred for the first time during 1981 is expected to continue through 1983. The reduction is expected at all three levels of government (federal, state and local) as a result of reduced budgets. Public sector payrolls will show a reduction of 9,700 from 1981 to average 608,000 in 1983.

TABLE XII
WAGE AND SALARY EMPLOYMENT
STATE OF MICHIGAN
1983 PROJECTIONS

			Change	
	1983	1981	Number	Percent
Wage and Salary Employment (000's)	3494.3	3377.7	+116.6	+ 3.5%
Manufacturing Industries	1053.3	977.7	+ 75.6	+ 7.7
Durable Goods Industries	843.4	780.5	+ 62.9	+ 8.1
Lumber and Wood Products	10.6	10.7	- 0.1	0.0
Furniture and Fixtures	23.1	22.7	+ 0.4	+ 1.8
Metal Products	196.6	178.6	+ 18.0	+10.1
Primary Metal Products	70.4	64.5	+ 5.9	+ 9.1
Fabricated Metal Products	126.2	114.1	+ 12.1	+10.6
Nonelectrical Machinery	163.5	157.1	+ 6.4	+ 4.1
Electrical Machinery	34.0	32.8	+ 1.2	+ 3.7
Transportation Equipment	374.8	339.6	+ 35.2	+10.4
Motor Vehicles & Equipment	358.0	324.2	+ 33.8	+10.4
Other Trans. Equipment	16.8	15.4	+ 1.4	+ 9.1
Other Durable Goods	40.8	39.0	+ 1.8	+ 4.6
Nondurable Goods Industries	209.9	197.2	+ 12.7	+ 6.4
Food and Kindred Products	48.5	45.9	+ 2.6	+ 5.7
Textile Mill Products & Apparel	21.8	19.4	+ 2.4	+12.4
Paper and Allied Products	22.0	21.6	+ 0.4	+ 1.9
Printing, Publishing & Allied	33.7	32.5	+ 1.2	+ 3.7
Chemicals, Petroleum & Related	47.5	46.1	+ 1.4	+ 3.0
Other Nondurable Goods	36.4	31.7	+ 4.7	+14.8
Nonmanufacturing Industries	1833.0	1782.3	+ 50.7	+ 2.8
Construction	108.0	103.0	+ 5.0	+ 4.9
Trans., Commun. & Utilities	145.0	144.8	+ 0.2	+ 0.1
Wholesale Trade	159.0	158.6	+ 0.4	+ 0.3
Retail Trade	560.0	554.7	+ 5.3	+ 1.0
Finance, Real Estate & Insurance	158.0	154.0	+ 4.0	+ 2.6
Service	691.0	655.1	+ 35.9	+ 5.5
Mining	12.0	12.1	- 0.1	0.0
Government	608.0	617.7	- 9.7	- 1.6
Federal	55.0	56.5	- 1.5	- 2.7
State	144.0	148.7	- 4.7	- 3.2
Local	409.0	412.5	- 3.5	- 0.8

Source: Michigan Employment Security Commission
Bureau of Research and Statistics

EMPLOYMENT DEVELOPMENTS AND OUTLOOK BY OCCUPATION

Displaced Workers

Many Michigan workers have been displaced by a relatively poor economic climate, which has persisted over the past several years, and also by new and progressing technologies. These developments have caused serious structural dislocations in the labor market. Displaced workers are defined as those who have been unemployed for more than 20 weeks as a result of a layoff, or as a result of the permanent closing of a private business, and who cannot be expected to find similar work in their locality, owing to economic conditions. An accurate assessment of displaced workers and their skills is necessary to plan and implement effective training and re-location programs. This will insure a smoother transition in meeting anticipated labor shortages in the newer, developing skill areas by a fuller utilization of our existing labor force.

Information on displaced workers may be derived from MESC data on claimants. The following table reflects occupations of claimants, by industry, for December 1979 and December 1981. This information is based on claimants eligible for up to 26 weeks of unemployment compensation.

The impact of unemployment has been greatest in the goods-producing industries, since they are more vulnerable to cyclical contractions. Nearly six out of every ten Michigan claimants drawing their first 26 weeks of unemployment benefits in December 1979 and December 1981 were concentrated in the manufacturing or goods-producing industries. In addition, nearly half of these were in transportation equipment. Although the proportion of unemployed in the industry dropped slightly in December 1981, it continues to comprise the largest concentration of unemployed claimants.

The blue-collar occupations are heavily concentrated in the manufacturing industries. Because of this, they have been more adversely affected by the economic downturn. The hardest-hit occupations were in miscellaneous metal fabricating. These occupations are clustered in the transportation equipment industry. For the most part, these jobs involve automotive assemby-line workers. Over 40 percent of transportation equipment claimants in December 1979 were assembly-line workers. This proportion increased to nearly 50 percent in December 1981. Other occupational areas experiencing significant unemployment include jobs in metal machinery; metalworking; fabricating, assembly and repair of metal products; welding; and packaging and material handling.

While manufacturing has been most severely affected by the recession, the nonmanufacturing sector has also experienced some employment losses. In December 1979, over one-third of all claimants were from the nonmanufacturing sector. There was no significant change in this proportion in December 1981. With the exception of construction claimants, most of those unemployed in the nonmanufacturing sector would not meet the displaced criteria (i.e. length of unemployment and/or plant closure).

The hardest-hit industries within the nonmanufacturing sector were construction and trade. Approximately 13 percent of all claimants in December 1979 were from the construction industry. Although the proportion declined slightly, to nearly 11 percent in December 1981, the construction industry is still plagued by high interest rates and continues to experience employment losses.

Compared with other industries, construction has been depressed for the longest period of time, never having recovered from the 1974-75 recession. The occupations most affected in the construction industry include carpenters, plumbers, brick and stone masons, excavating and paving occupations, and various other miscellaneous construction jobs.

As the recession deepens, the ripple effect is beginning to impact the trade area. Over 11 percent of all claimants were concentrated in wholesale and retail trade in December 1979. By December 1981, this proportion had increased to 12 percent. The food and beverage preparation and service occupations were among the hardest hit in the trade area. More specifically, occupations within this group include waiters/waitresses, cooks, bartenders, and miscellaneous kitchen helpers. In December 1979, nearly 19 percent of trade industry claimants were in the food and beverage preparation and service occupations. This proportion dropped to approximately 15 percent in December 1981. Other occupations in the trade area, not severely impacted by the recession but which have experienced a significant level of unemployment, include cashiers, bookkeepers, salesworkers, stenographers and wholesale/retail managers. In all of these occupations, the proportion of unemployed claimants increased between 1979 and 1981.

The other two remaining major industry sectors are service and government. In December 1979, nearly 8 percent of all claimants were from the service industry. By December 1981, this proportion had increased to 8.3 percent. Most of the unemployed in this industry are concentrated in food and beverage preparation; stenography, typing and filing; and computing and account recording.

The government sector was the only sector to experience continued employment growth up to 1981. However, in 1981, as a result of federal and state budget reductions, government employment began to decline. Government sector claimants comprised 3.4 percent of all claimants in December 1979. By December 1981, this proportion had increased to 5.3 percent. Most of the unemployed are concentrated in the education and clerical occupations.

The following table contains information on the occupations of claimants covered by the Regular U.I. Program in Michigan for December 1979 and December 1981. The data are for major industry sectors by selected 2-digit Dictionary of Occupational Title (DOT) codes. A more detailed table is provided in Appendix C.

TABLE XIII

OCCUPATIONS OF REGULAR UI CLAIMANTS BY INDUSTRY
MICHIGAN
DECEMBER 1979 AND 1981

	Total		Manufacturing		Trans. Eqpt.		Nonmfg.		Construction		Trade		Service		Government	
	Dec. 79	Dec. 81	Dec. 79	Dec. 81	Dec. 79	Dec. 81	Dec. 79	Dec. 81	Dec. 79	Dec. 81	Dec. 79	Dec. 81	Dec. 79	Dec. 81	Dec. 79	Dec. 81
All Occupations	198,490	225,700	117,801	131,931	48,671	46,046	73,937	81,709	24,983	24,645	22,337	26,337	15,746	18,768	6,754	12,060
Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
00- Architect. and 01 Engr.	0.6	1.1	0.5	0.7	0.5	0.3	0.8	1.8	0.5	0.7	0.5	0.7	1.7	5.3	1.0	0.8
09 Education	0.5	1.7	-	-	-	-	0.3	0.4	-	0.1	0.1	0.1	1.1	1.4	11.9	28.6
16 Admin. Spec.	1.2	1.6	0.7	0.7	0.7	0.5	1.8	2.7	0.6	1.0	2.5	3.3	2.8	4.2	3.6	4.1
18 Mgrs. and Officials, NEC	1.7	1.8	0.6	0.6	0.5	0.4	3.5	3.8	1.0	1.3	6.2	6.5	4.3	3.8	1.7	1.5
20 Sten., Typing, Filing	2.8	3.2	1.2	1.2	0.9	0.6	4.7	5.5	1.7	2.2	4.2	5.1	7.9	9.1	9.8	10.3
21 Comput., Acct. Recording	3.0	2.9	0.9	0.7	0.5	0.3	6.1	6.1	1.3	1.7	9.9	10.8	6.9	5.1	4.5	3.8
22 Material, Prod., Rec.	1.3	1.1	1.3	1.0	0.9	0.6	1.3	1.2	0.2	0.3	2.9	2.7	0.9	7.0	0.4	0.3
23 Infor., Message Distr.	0.6	0.4	0.1	0.1	0.1	0.1	1.1	0.9	0.2	0.3	0.6	0.5	2.2	1.8	1.5	0.6
24 Misc. Clerical	0.2	0.4	0.1	-	0.1	-	0.3	0.3	0.1	-	0.3	0.3	0.7	0.5	2.4	5.7
27 Sales, Commodities, NEC	0.6	0.9	0.1	0.2	-	-	1.4	2.1	0.2	0.4	3.7	5.2	0.7	0.9	0.3	0.2
31 Food and Bev. Prep.	3.2	2.7	0.3	0.2	0.1	0.2	7.8	0.4	0.3	0.2	18.5	14.5	9.3	7.5	3.4	3.3
38 Building and Rel.	1.5	1.3	1.2	1.0	1.0	0.8	1.6	1.4	0.4	0.3	1.3	1.0	4.2	3.2	5.5	3.7
40 Plant Farming	1.0	0.7	0.3	0.2	0.1	0.2	1.6	1.3	0.6	0.5	0.8	0.7	4.8	3.5	5.1	2.4
50 Processing of Metal	2.2	2.6	2.6	2.9	1.4	1.6	1.6	2.2	1.5	1.7	1.8	2.3	1.3	2.7	1.5	1.8
51 Ore Refining and Fourdry	1.8	1.5	2.8	2.4	0.4	0.4	0.2	0.3	0.2	0.3	0.3	0.3	0.1	0.2	-	0.1
52 Proc. of Food, Tobacco	0.7	0.6	1.0	0.9	0.1	0.1	0.4	0.3	0.1	0.1	0.9	0.6	0.2	0.2	0.2	0.2
60 Metal Machining	11.3	11.3	17.4	17.2	19.4	14.9	2.5	3.2	2.8	3.3	2.8	3.2	2.3	3.9	1.7	1.7
61 Metalworking, NEC	4.7	4.4	7.5	7.0	5.2	5.2	0.6	0.8	0.5	0.8	0.7	0.9	0.7	0.9	0.4	0.1
62- Mechanics and 63 Machinery Rpr.	2.0	2.4	1.5	1.9	1.6	1.6	2.9	3.4	1.7	2.2	4.3	4.0	2.5	2.5	0.7	0.5
70 Fab., Assem. Rpr., NEC	5.1	5.5	7.9	8.6	6.3	9.0	1.1	1.4	0.7	1.7	1.4	1.5	1.5	1.3	0.6	0.5
72 Assem. Repr. of Elec. Eqpt.	0.4	0.5	0.5	0.6	0.2	0.6	0.2	0.2	0.1	0.1	0.3	0.2	0.2	0.4	-	0.1
78 Fab., Rep. of Text., Leat. Prod.	1.5	1.1	2.2	1.8	0.4	0.3	0.4	0.3	-	0.2	0.7	0.6	0.6	0.4	0.1	-
80 Metal Fab., NEC	17.2	18.0	26.5	27.9	43.2	49.5	3.8	4.2	4.3	5.4	4.0	3.8	3.7	4.2	2.1	2.5
81 Welders, Flamecutters	2.4	2.1	3.6	2.9	3.6	2.3	0.8	1.0	0.9	1.1	0.4	0.5	1.0	1.1	0.2	0.3
82 Elect. Assemb.	1.0	1.5	0.7	1.4	0.8	0.7	1.4	1.8	3.3	4.4	0.4	0.5	0.5	0.4	0.3	0.3
84 Paint, Plastic, Cement	1.2	1.0	0.2	0.3	0.2	0.2	2.9	2.3	7.7	6.9	0.4	0.2	0.6	0.5	0.3	0.3
85 Excav., Grad., Paving	1.5	1.2	0.2	0.2	-	-	3.6	3.0	9.1	7.0	0.4	0.4	0.4	0.3	0.8	0.6
86 Construction, NEC	7.1	6.0	1.4	1.4	1.0	1.0	16.7	14.3	44.5	41.5	2.6	2.3	2.2	2.8	3.0	1.7
89 Structural Work, NEC	0.6	0.6	0.4	0.4	0.3	0.3	0.8	0.7	0.5	0.5	0.6	0.4	1.2	1.0	1.8	0.9
90 Motor Freight	4.0	3.4	1.6	1.6	0.8	0.8	7.8	6.5	5.3	4.9	3.8	4.4	2.0	1.9	2.8	2.8
91 Transportation, NEC	0.8	0.7	0.4	0.2	0.3	0.2	1.3	1.2	0.3	0.3	2.1	1.8	0.8	0.8	1.9	2.8
92 Pack. and Material Hand.	6.5	6.1	7.6	6.9	4.8	3.6	5.0	5.3	4.2	4.0	6.3	7.6	2.8	3.3	2.7	2.3
93 Extract. of Minerals	0.3	0.6	0.1	0.1	0.1	0.1	0.6	1.5	0.2	0.3	0.1	0.2	0.1	0.2	-	0.1

Source: Michigan Employment Security Commission
Bureau of Research and Statistics
UI Data Base

SHORT-TERM OCCUPATIONAL OUTLOOK

Assumptions/Methodology

The occupational projections are based on the assumption of a significant improvement in motor vehicle sales and production in 1983. Several factors point toward an improved auto outlook, although the scope and vigor of any recovery are uncertain. The lessening of inflation should promote real income growth; a round of substantial personal tax cuts is due in July 1982; and after years of sluggish sales, there appears to be some pent up demand for vehicles. On the other hand, interest rates remain high, threatening any recovery, and the auto industry is still experiencing some pricing problems. Although the outlook is uncertain, there now exists some potential for an uptrend in the auto market after several years of deep recession.

The occupational projections presented are based solely on anticipated industry growth patterns for the 1980-1983 period. They do not reflect any assumptions about changes in industry staffing patterns caused by technological trends or other reasons. Generally, technological and other staffing pattern trends play less of a role in the short run than from a long-term perspective when their cumulative effect can be very significant. However, some trends may be important even in the short run. In the discussion following, important short and long term staffing pattern trends will be noted in addition to the industry effects themselves.

Since a cyclical turnaround is assumed, many occupations heavily affected by the recession are shown growing substantially between 1980 and 1983. Growth in these occupations, therefore, does not really represent new jobs. The employment increase only represents a recovery of some of the jobs lost during the recession. This is particularly true of the blue-collar occupations where employment needs are likely to be met by hiring from the ranks of workers displaced during the recession.

Industry/Occupation Patterns

Total employment is projected to grow 1.1 percent between 1980 and 1983. Growth in individual occupations will be related to the growth pattern of the industries in which they are concentrated. Some occupations will expand because of the cyclical upturn in the manufacturing sector. Other occupations will grow because they are concentrated in industries that have expanded in spite of the recession and still others will be shown as declining.

Between 1980 and 1983, total manufacturing is expected to grow by more than 5.0 percent. Industries in the durable goods sector will grow the fastest with motor vehicles and nonelectrical machinery leading the advance with increases of more than 9 percent and 6 percent, respectively. Nondurables are not expected to grow quite as rapidly between 1980 and 1983, but do show strong gains when contrasted to 1981 employment.

Expansion in both durable and nondurable goods industries will have its greatest effect on blue-collar employment, which should grow nearly 2.0 percent. Operatives, who compose over 40 percent of manufacturing employment, will grow the fastest, increasing nearly 3.0 percent. Craft workers, also heavily concentrated in manufacturing, should show significant employment gains as well.

Among the nonmanufacturing industries, finance, real estate and insurance, and the service sector should grow the fastest with employment levels for the latter rising as much as 7.0 percent between 1980 and 1983. Growth in these industries corresponds directly with forecasted gains in white-collar employment. Employee groups within this broad occupational category registering the most significant growth should be professional and technical workers as well as some classes of clerical workers. Both groups are most heavily concentrated in services, and finance, real estate and insurance.

Other industries within nonmanufacturing such as construction, wholesale and retail trade, and transportation, communications and utilities are shown as declining from 1980 to 1983. While 1983 employment is less than in 1980, these industries are also expected to benefit from the cyclical upturn. Projections for 1983 do represent an improvement over 1981 when employment levels were most severely depressed.

Growth in the service occupations is linked to the positive employment trends in the service industries where these workers are most heavily concentrated. One limiting factor for the service occupations, however, is the behavior of government employment. Of the major industry groupings, it appears that government employment will fare the worst in the near future. All levels of public employment are projected to decline, with aggregate government payrolls falling 3.0 percent. Although the revenue situation is expected to improve, cutbacks in federal support for local programs will result in reduced employment.

Professional, Technical and Related

Focusing on the more detailed occupational categories, the number of professional and technical workers is expected to increase at an above average pace, 2.1 percent between 1980 and 1983, a pace faster than that for all occupations. The most rapid job expansion will occur among medical workers and engineers, both projected to grow at just under 6.0 percent. Considerable differences in growth rates are apparent among the diverse occupations represented in this group. For example, jobs for nurses are expected to grow nearly 5.0 percent, while employment among teachers is projected to decline more than 1.0 percent, a reflection of declining birth rates and falling enrollments. The computer specialists growth rate is shown as 2.2 percent, but this is likely understated since demand for these professionals is very strong.

Managers, Administrators and Proprietors

Managers, administrators and proprietors are projected to decline 0.5 percent between 1980 and 1983. Reflecting the somewhat depressed state of retail trade in general, jobs for sales managers in retailing are expected to fall 5.5 percent. Counteracting some of the job losses are projected gains among bank and financial managers, 2.1 percent, and health administrators, 5.2 percent. Strong employment advances for these groups are consistant with the growth now being experienced in the health and finance industries.

Sales Workers

Overall employment levels of sales workers are projected to decline 2.1 percent as they tend to be concentrated in those industries which will be last touched in Michigan by an economic upturn - wholesale/retail trade and real estate. Aside from the negative effect the economic recession has had on retail trade, the long-term sales worker employment trend has also been affected by technological changes within the industry itself. The utilization of such merchandising techniques as self-service, automated checkout counters and vending machines, plus improved sales recording technology, will tend to inhibit the demand for general sales workers. Jobs for some kinds of sales workers, however, have increased despite the recession. Employment of stock and bond sales agents is projected to grow by more than 16.0 percent between 1980 and 1983. Demand for this occupation is generated during uncertain economic periods as people search for ways to protect their investments, make new ones, and preserve their standard of living.

Clerical Workers

The number of clerical workers, who rank as the largest occupational group in Michigan, is projected to grow only marginally at 0.4 percent between 1980 and 1983. There are sharp variations, however, in growth rates among the occupations represented in this group. For example, jobs for legal and medical secretaries are projected to increase 10.8 percent and 5.1 percent, respectively. Because of the high degree of personal contact required in their work, secretaries tend to be less affected by changes in technology. Developments in communication devices, computers, word processors, and the emergence of automated forms of mail handling, however, will reduce employment opportunities in several occupational categories, including telephone operators, postal clerks and mail handlers, and calculating machine operators. Those clerical workers concentrated in the fastest growing industries, such as health, business services and finance, real estate and insurance, will enjoy the greatest employment opportunities in the future. Also, technological change will spur the employment growth of computer and peripheral equipment operators.

Craft and Kindred Workers

Expected to grow at a rate of 1.4 percent between 1980 and 1983, job opportunities for craft and kindred workers will increase at a pace similar to that of all occupations. Growth patterns for these workers will clearly follow projected industry growth trends. Reflecting the depressed situation of construction across the state, jobs for construction craft workers are expected to decline 2.1 percent between 1980 and 1983. The anticipated upturn in the auto industry, however, should act as a countervailing force as opportunities for metal crafts workers should grow 5.0 percent. Jobs for tool and die workers, machinists, and job and die setters should advance at faster-than-average rates. The outlook for mechanics and repairers is generally positive, with the overall group growing 2.6 percent, much faster than for all occupations. Employment of auto mechanics will increase because of the economic upturn and employment of data processing machine repairers will grow as computerization becomes more widespread.

Operatives

The operative grouping contains a wide variety of semi-skilled occupations, concentrated mainly in manufacturing. It is the second largest of the major occupational groups in Michigan and includes a subgroup composed of transport equipment operatives. The overall operative category is projected to grow almost twice as fast as all occupations in the state, at a rate of 2.8 percent.

Employment prospects for these workers are heavily dependent on trends in manufacturing industries. The outlook for manufacturing employment is favorable to 1983, particularly in contrast to the depressed 1981 employment levels. This is based on anticipated developments in the motor vehicle market. A good outlook for the auto industry implies favorable employment prospects for workers in the state's manufacturing sector.

Those operatives most closely aligned with the auto industry, welders and flame cutters, assemblers, miscellaneous machine operatives, and sewers and stitchers, should, in fact, expect increased job opportunities between 1980 and 1983. Employment levels for these particular workers should grow at well above-average rates. However, in the longer run, employment opportunities for many of these workers will be limited by new technology, such as robotics. Also, much of the short-term employment growth will be accomodated through the hiring of displaced workers.

The outlook for other groups of operatives is somewhat mixed. Because of the trend toward centralized meatcutting in the meatpacking industry, jobs for meatcutters and butchers outside of manufacturing are expected to decline almost 4.0 percent. On the other hand, employment opportunities for photographic process workers should increase nearly 3.0 percent. The special subgroup of transport equipment operatives is projected to decline by approximately 1.0 percent.

Service Workers

Service workers, projected to grow 2.0 percent between 1980 and 1983, consist of a wide variety of occupations. Health service workers should be the fastest growing job group as much of the growth observed in the health industry will translate into employment gains for these workers. Overall health service employment levels are predicted to advance 5.4 percent, with job opportunities for dental assistants, health aides (except nursing) and nurses' aides, increasing the most.

Revenue cutbacks at the local level of government should result in falling employment levels for protective service workers such as police and firefighters. Job levels for private household workers will probably remain unchanged between 1980 and 1983. As the population grows, business activity picks up, personal incomes rise and inflation abates, jobs for cooks, bartenders, cosmetologists and other personal service workers should increase to 1983.

Laborers

Employment levels for the laborer group overall should decline a marginal 0.4 percent between 1980 and 1983. Laborers, who comprise one of the smallest of the major occupational classifications, are found in a variety of industries with the largest concentrations found in manufacturing, retail trade and construction. Construction laborers and carpenters' helpers have been adversely affected by the generally depressed construction industry. Declines are projected for the wholesale and retail trade industries where many laborers are employed. (These industries are increasing compared with 1981 rather than 1980.) Long-run, technological change is expected to reduce demand for laborers.

Farmers and Farm Workers

The demand for farmers and farm workers is projected to decline 2.8 percent. The recent trend has been for a reduction in farmers and unpaid family laborers, while the number of hired workers has tended to increase. These trends are projected to extend through the 1980 to 1983 period.

Job Openings

While employment expansion is a major factor in the occupational outlook, an equally important measure of job opportunities is the actual number of job openings likely to occur in a particular occupation. Openings are produced from two sources: 1) growth, and 2) replacements for persons leaving the labor force. From an openings perspective, the operatives and professional/technical groups should provide the largest number of job opportunities. The service and craft and kindred workers groups will also provide a significant number of job openings. The managers, officials and proprietors, sales, and laborers groups will provide the fewest number of openings.

APPENDIXES

A. Technical Notes and Expalantory Material
B. Characteristics of Job Service Applicants
C. Occupations of U.I. Claimants by Industry
D. Occupational Employment Projections

TECHNICAL NOTES AND EXPLANATORY MATERIAL

Labor Market Areas - consist of a central community and surrounding territory in which there is a concentration of economic activity or labor demand and in which workers can generally change jobs without changing their residence. Major labor market areas (SMSA's) have a central city (or adjoining cities) with a population of 50,000 or more. Small labor market areas do not have a central city of 50,000 or more and are not part of a major area.

Standard Metropolitan Statistical Areas (SMSA's) - are established by the Bureau of the Budget so that local economic and social statistics collected by many government and private organizations may be presented on a common geographic basis. Two basic considerations are involved in the establishment of an SMSA. First, each SMSA must include at least one city with 50,000 or more inhabitants, or two cities having contiguous boundaries and constituting, for general economic and social purposes, a single community with a combined population of at least 50,000. The smaller city must have a population of at least 15,000. In addition, at least 75 percent of the labor force must be nonagricultural, thus defining the metropolitan character of the area.

Current Population Survey - is conducted monthly in approximately 2,700 Michigan households by the U.S. Bureau of Labor Statistics to derive civilian labor force, total employment and unemployment estimates for the state. These estimates are prepared directly by BLS and released at the same time as the national figures each month. Labor force estimates for subareas of Michigan are compiled by the Research and Statistics Division of MESC based on standard BLS procedures. These independently derived figures for labor market areas are then adjusted for additivity to the statewide totals.

Civilian Labor Force (By Place of Residence) - is the summation of the number of area residents who are estimated to be employed and the number of area residents estimated to be unemployed.

Employment, Total - includes an unduplicated estimate of area residents who earned wages during the week including the 12th of each month. This estimate includes agricultural employees, self-employed and unpaid family workers, domestics and strikers, as well as residents who were employed in wage and salary jobs within the labor market area or in another labor market area.

Unemployment, Total - is an unduplicated estimate of area residents who did not earn any wages during the survey week including the 12th of the month, and who were able, available, and actively seeking work during the thirty-day period preceding the survey week.

Unemployment Rate - is the total number of unemployed in the labor market area divided by the civilian labor force in the area.

Wage and Salary Employment (By Place of Work) - is an estimate of the number of individual jobs in the area during the survey week. These estimates are available by industry and include nonresidents who commute into the labor market area for work, as well as individuals who have more than one job in the same labor market area.

Workers Involved in Labor Disputes - is an estimate of the number of jobs that are affected by a labor-management dispute during the entire survey week. Workers included in this category are not considered unemployed since they have a job attachment.

Benchmark (Current Employment Survey) - indicates the most recent time period during which the industry employment estimates, which are based on a monthly sample of local employers, were compared with and adjusted to the total count of area jobs as reported under the Michigan Employment Security Act. Also, previous estimates of noncovered employment are compared with the results of special surveys conducted for the benchmark month of March.

Benchmark (Current Population Survey) - indicates the most recent time period during which the labor force, employment and unemployment estimates, by place of residence, were compared with and adjusted to the national household survey conducted in Michigan by the U.S. Bureau of Labor Statistics.

Economically Disadvantaged Person - an individual who meets one of the following criteria:

1. Is a member of a family which receives welfare payments.
2. Is a member of a family whose income during the previous six months on an annualized basis was such that:
   a. The family would have qualified for public assistance if it had applied, or
   b. It did not exceed the poverty level, or
   c. It did not exceed 70 percent of the lower living standard income level.
3. Is a foster child on whose behalf state or local government payments are made.
4. Is a person whose status presents significant barriers to employment such as:
   a. A client of a sheltered workshop,
   b. A handicapped individual,
   c. A person residing in an institution or facility providing 24-hour support such as a prison, a hospital or a community care facility, or
   d. A regular outpatient of a mental hospital, rehabilitation facility or similar institution.

Poverty Level Income - is the maximum annual income a family of given size can receive, and still be considered "economically disadvantaged."

The poverty income level guidelines are as follows:

Family Size	Annual Income	
	Nonfarm	Farm
1	$4,310	$3,680
2	5,690	4,850
3	7,070	6,020
4	8,450	7,190
5	9,830	8,360
6	11,210	9,530

For family units with more than six members, add $1,380 for each additional member in a nonfarm family, and $1,170 for each additional member in a farm family.

Population Composition Projections, Fiscal Year 1983 - rely on national survival and state fertility rates for determining expected survivors and births, and on estimated migration patterns by area. These data were used in conjunction with 1970 census statistics, by race, sex, and age cohort, to develop a percentage distribution for the population in 1975 and then this distribution was applied to an independently derived total population projection for 1983 to develop 1983 area population composition estimates. Some modifications and/or aggregation of data were necessary to provide estimates for central cities, prime sponsor areas, and newly defined SMSA's.

Labor Force Composition Projections, Fiscal Year 1983 - rely on 1970-1975 national changes in labor force participation rates by age/sex/race cohorts, and special 4th and 6th count 1970 census tabulations prepared under contract with the Employment and Training Administration by Lawrence Berkeley Laboratories to provide 1970 base data for the labor force and the unemployed. These data were applied to an estimate of total persons expected to be in the labor force in FY 1983 in order to derive characteristics of labor force participants. A similar technique was used to develop unemployment composition projections.

Job Service Applicant Tables - provide information on the characteristics of Job Service applicants in the active files of the Michigan Employment Security Commission during fiscal year 1981 (Oct. 1, 1980 - Sept. 30, 1981). A person's job applicaton is listed as active if the MESC branch office currently considers that person as available for referral to any job opening.

U.I. (Unemployment Insurance) Data Base Tables - provide information on the characteristics of claimants drawing regular unemployment compensation during the survey week of February 1982.

APPENDIX B

CHARACTERICSTICS OF JOB SERVICE APPLICANTS
FISCAL YEAR 1981

MICHIGAN, ALL RACES

	TOTAL	ECONOMICALLY DISADVANTAGED	WELFARE RECIP-IENTS	HANDI-CAPPED	VETERAN TOTAL	VIETNAM VETERANS
TOTAL						
AGE						
TOTAL	395,485	227,098	156,684	22,560	69,099	18,308
14-15	892	502	288	17	73	16
16-17	7,128	5,330	4,207	111	20	4
18	10,564	6,383	3,823	155	61	6
19	12,134	5,738	2,497	217	272	6
20-21	27,902	12,597	6,291	751	1,618	33
22-24	49,169	24,501	14,732	1,728	6,442	574
25-44	225,555	144,226	106,499	13,052	41,426	17,156
45-54	37,362	19,943	13,945	3,875	9,896	325
55-64	20,515	6,796	3,893	2,289	8,250	106
65+	4,264	1,082	509	365	1,041	82
MALE						
AGE						
TOTAL	202,485	101,472	59,826	12,942	65,340	17,447
14-15	470	220	102	13	67	16
16-17	3,833	2,884	2,317	60	17	3
18	5,545	3,368	2,069	89	48	4
19	6,693	3,114	1,309	150	232	5
20-21	16,321	7,269	3,469	539	1,459	23
22-24	29,941	14,538	8,082	1,287	5,977	542
25-44	108,622	59,047	36,260	7,213	39,158	16,383
45-54	16,874	7,366	4,390	1,877	9,462	300
55-64	11,572	3,079	1,602	1,445	7,903	93
65+	2,614	587	226	269	1,017	78
FEMALE						
AGE						
TOTAL	193,000	125,626	96,858	9,618	3,759	861
14-15	422	282	186	4	6	-
16-17	3,295	2,446	1,890	51	3	1
18	5,019	3,015	1,754	66	13	2
19	5,441	2,624	1,188	67	40	1
20-21	11,581	5,328	2,822	212	159	10
22-24	19,228	9,963	6,650	441	465	32
25-44	116,933	85,179	70,239	5,839	2,268	773
45-54	20,488	12,577	9,555	1,998	434	25
55-64	8,943	3,717	2,291	844	347	13
65+	1,650	495	283	96	24	4

SOURCE: MESC BUREAU OF RESEARCH AND STATISTICS

CHARACTERICSTICS OF JOB SERVICE APPLICANTS
FISCAL YEAR 1981

MICHIGAN, WHITE

	TOTAL	ECONOMICALLY DISADVANTAGED	WELFARE RECIP-IENTS	HANDI-CAPPED	VETERAN TOTAL	VIETNAM VETERANS
TOTAL						
AGE						
TOTAL...	270,041	129,419	87,640	16,490	53,355	13,961
14-15...	583	237	115	14	52	12
16-17...	4,548	3,016	2,397	82	13	3
18......	6,928	3,306	1,868	118	44	3
19......	8,905	3,255	1,372	174	211	4
20-21...	20,739	7,570	3,757	619	1,235	23
22-24...	35,201	14,602	8,730	1,331	4,943	441
25-44...	148,698	82,324	60,088	9,456	31,338	13,106
45-54...	25,685	10,913	7,203	2,681	7,841	239
55-64...	15,486	3,657	1,879	1,730	6,849	79
65+.....	3,268	539	231	285	829	51
MALE						
AGE						
TOTAL...	149,335	65,920	40,530	10,025	50,684	13,333
14-15...	344	123	54	12	47	12
16-17...	2,476	1,658	1,316	46	12	3
18......	3,657	1,766	1,015	69	35	2
19......	4,977	1,826	798	116	183	4
20-21...	12,607	4,798	2,488	440	1,125	19
22-24...	22,621	9,802	5,835	1,011	4,610	422
25-44...	78,773	38,931	25,045	5,490	29,798	12,529
45-54...	12,745	4,822	2,894	1,450	7,520	224
55-64...	9,120	1,877	962	1,179	6,541	69
65+.....	2,015	317	123	212	813	49
FEMALE						
AGE						
TOTAL...	120,706	63,499	47,110	6,465	2,671	628
14-15...	239	114	61	2	5	-
16-17...	2,072	1,358	1,081	36	1	-
18......	3,271	1,540	853	49	9	1
19......	3,928	1,429	574	58	28	-
20-21...	8,132	2,772	1,269	179	110	4
22-24...	12,580	4,800	2,895	320	333	19
25-44...	69,925	43,393	35,043	3,966	1,540	577
45-54...	12,940	6,091	4,309	1,231	321	15
55-64...	6,366	1,780	917	551	308	10
65+.....	1,253	222	108	73	16	2

SOURCE: MESC BUREAU OF RESEARCH AND STATISTICS

CHARACTERICSTICS OF JOB SERVICE APPLICANTS
FISCAL YEAR 1981

MICHIGAN, BLACK

	TOTAL	ECONOMICALLY DISADVANTAGED	WELFARE RECIP- IENTS	HANDI- CAPPED	VETERAN TOTAL	VIETNAM VETERANS
TOTAL						
AGE						
TOTAL...	114,518	90,051	64,007	5,489	14,573	4,015
14-15...	252	223	163	2	19	4
16-17...	2,303	2,085	1,649	28	6	1
18......	3,319	2,842	1,817	34	14	2
19......	2,887	2,260	1,038	38	58	1
20-21...	6,437	4,573	2,314	120	360	6
22-24...	12,720	9,118	5,539	352	1,377	123
25-44...	70,609	57,438	43,295	3,253	9,323	3,748
45-54...	10,529	8,178	6,112	1,081	1,903	77
55-64...	4,533	2,833	1,821	505	1,314	25
65+.....	929	501	259	76	199	28
MALE						
AGE						
TOTAL...	47,083	31,498	16,864	2,576	13,578	3,811
14-15...	93	73	44	1	18	4
16-17...	1,199	1,095	908	13	4	-
18......	1,712	1,471	976	19	10	1
19......	1,526	1,167	463	29	47	1
20-21...	3,285	2,202	850	90	319	3
22-24...	6,474	4,194	1,925	242	1,257	110
25-44...	26,452	17,819	9,776	1,518	8,649	3,574
45-54...	3,603	2,182	1,271	375	1,802	69
55-64...	2,182	1,050	557	235	1,277	22
65+.....	557	245	94	54	195	27
FEMALE						
AGE						
TOTAL...	67,435	58,553	47,143	2,913	995	204
14-15...	159	150	119	1	1	-
16-17...	1,104	990	741	15	2	1
18......	1,607	1,371	841	15	4	1
19......	1,361	1,093	575	9	11	-
20-21...	3,152	2,371	1,464	30	41	3
22-24...	6,246	4,924	3,614	110	120	13
25-44...	44,157	39,619	33,519	1,735	674	174
45-54...	6,926	5,996	4,841	706	101	8
55-64...	2,351	1,783	1,264	270	37	3
65+.....	372	256	165	22	4	1

SOURCE: MESC BUREAU OF RESEARCH AND STATISTICS

CHARACTERICSTICS OF JOB SERVICE APPLICANTS
FISCAL YEAR 1981

MICHIGAN, HISPANIC

	TOTAL	ECONOMICALLY DISADVANTAGED	WELFARE RECIP- IENTS	HANDI- CAPPED	VETERAN TOTAL	VIETNAM VETERANS
TOTAL						
AGE						
TOTAL...	8,037	5,869	3,919	443	837	243
14-15...	49	39	7	1	2	-
16-17...	245	204	140	1	1	-
18......	250	188	113	3	1	1
19......	273	180	69	3	2	-
20-21...	546	355	179	9	14	3
22-24...	927	604	360	30	87	8
25-44...	4,513	3,415	2,432	262	558	222
45-54...	844	640	472	91	108	6
55-64...	346	217	136	39	55	-
65+.....	44	27	11	4	9	3
MALE						
AGE						
TOTAL...	4,373	3,038	1,830	253	771	220
14-15...	30	23	3	-	2	-
16-17...	138	115	79	1	1	-
18......	140	106	64	1	1	1
19......	145	91	35	3	2	-
20-21...	313	207	103	6	7	-
22-24...	629	421	252	24	81	8
25-44...	2,382	1,684	1,071	150	516	205
45-54...	375	261	157	42	100	4
55-64...	193	113	61	23	54	-
65+.....	28	17	5	3	7	2
FEMALE						
AGE						
TOTAL...	3,664	2,831	2,089	190	66	23
14-15...	19	16	4	1	-	-
16-17...	107	89	61	-	-	-
18......	110	82	49	2	-	-
19......	128	89	34	-	-	-
20-21...	233	148	76	3	7	3
22-24...	298	183	108	6	6	-
25-44...	2,131	1,731	1,361	112	42	17
45-54...	469	379	315	49	8	2
55-64...	153	104	75	16	1	-
65+.....	16	10	6	1	2	1

SOURCE: MESC BUREAU OF RESEARCH AND STATISTICS

CHARACTERICSTICS OF JOB SERVICE APPLICANTS
FISCAL YEAR 1981

MICHIGAN, AMERICAN INDIAN

	TOTAL	ECONOMICALLY DISADVANTAGED	WELFARE RECIP-IENTS	HANDI-CAPPED	VETERAN TOTAL	VIETNAM VETERANS
TOTAL						
AGE						
TOTAL...	1,299	842	529	102	268	73
14-15...	5	1	1	-	-	-
16-17...	14	12	11	-	-	-
18......	30	20	8	-	1	-
19......	33	17	5	1	1	1
20-21...	76	38	18	2	5	-
22-24...	155	82	48	9	31	2
25-44...	783	538	348	64	170	68
45-54...	137	98	73	18	37	2
55-64...	61	33	17	8	22	-
65+.....	5	3	-	-	1	-
MALE						
AGE						
TOTAL...	739	446	243	69	252	68
14-15...	2	-	-	-	-	-
16-17...	8	6	6	-	-	-
18......	15	8	3	-	1	-
19......	19	11	3	1	-	-
20-21...	51	26	13	2	5	-
22-24...	108	58	33	6	27	2
25-44...	434	278	154	44	162	64
45-54...	70	44	26	9	35	2
55-64...	28	13	5	7	21	-
65+.....	4	2	-	-	1	-
FEMALE						
AGE						
TOTAL...	560	396	286	33	16	5
14-15...	3	1	1	-	-	-
16-17...	6	6	5	-	-	-
18......	15	12	5	-	-	-
19......	14	6	2	-	1	1
20-21...	25	12	5	-	-	-
22-24...	47	24	15	3	4	-
25-44...	349	260	194	20	8	4
45-54...	67	54	47	9	2	-
55-64...	33	20	12	1	1	-
65+.....	1	1	-	-	-	-

SOURCE: MESC BUREAU OF RESEARCH AND STATISTICS

CHARACTERICSTICS OF JOB SERVICE APPLICANTS
FISCAL YEAR 1981

MICHIGAN, ASIAN &
PACIFIC IS.

	TOTAL	ECONOMICALLY DISADVANTAGED	WELFARE RECIP-IENTS	HANDI-CAPPED	VETERAN TOTAL	VIETNAM VETERANS
TOTAL						
AGE						
TOTAL...	1,59[illegible]	917	589	36	66	16
14-15...	3	2	2	-	-	-
16-17...	18	13	10	-	-	-
18......	37	27	17	-	1	-
19......	36	26	13	1	-	-
20-21...	104	61	23	1	4	1
22-24...	166	95	55	6	4	-
25-44...	952	511	336	17	37	12
45-54...	167	114	85	4	7	1
55-64...	89	56	40	7	10	2
65+.....	18	12	8	-	3	-
MALE						
AGE						
TOTAL...	955	570	359	19	55	15
14-15...	1	1	1	-	-	-
16-17...	12	10	8	-	-	-
18......	21	17	11	-	1	-
19......	26	19	10	1	-	-
20-21...	65	36	15	1	3	1
22-24...	109	63	37	4	2	-
25-44...	581	335	214	11	33	11
45-54...	81	57	42	1	5	1
55-64...	49	26	17	1	10	2
65+.....	10	6	4	-	1	-
FEMALE						
AGE						
TOTAL...	635	347	230	17	11	1
14-15...	2	1	1	-	-	-
16-17...	6	3	2	-	-	-
18......	16	10	6	-	-	-
19......	10	7	3	-	-	-
20-21...	39	25	8	-	1	-
22-24...	57	32	18	2	2	-
25-44...	371	176	122	6	4	1
45-54...	86	57	43	3	2	-
55-64...	40	30	23	6	-	-
65+.....	8	6	4	-	2	-

SOURCE: MESC BUREAU OF RESEARCH AND STATISTICS

APPENDIX C

OCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1979

MICHIGAN

	TOTAL											
	REGULAR UI											
	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN, REAL EST, INS	SERVICES	GOVERN-MENT
TOTAL	198,492	117,801	100,891	48,671	16,910	73,937	24,983	7,309	22,337	2,424	15,746	6,754
OCCUPATION												
0&1 PROFESSIONAL, TECHNICAL, & MANAGERIAL TOTAL	11,734	3,280	2,761	1,509	520	6,618	667	388	2,402	316	2,820	1,836
00&01 ARCHITECTURE & ENGINEERING	1,173	546	485	231	61	558	114	39	111	16	270	68
02 MATHEMATICS & PHYSICAL SCIENCES	266	136	99	62	37	95	5	1	30	5	50	36
04 LIFE SCIENCES	206	12	8	2	4	88	6	2	7	2	72	106
05 SOCIAL SCIENCES	64	25	17	12	8	26	2	4	13	-	6	13
07 MEDICINE AND HEALTH	896	139	106	64	33	634	9	14	53	-	557	124
09 EDUCATION	1,078	61	51	18	10	214	7	7	27	3	170	803
10 MUSEUM, LIBRARY, AND ARCHIVAL SCIENCES	139	64	54	26	10	42	16	1	12	-	12	32
11 LAW AND JURISPRUDENCE	38	4	4	3	-	27	-	-	5	6	17	7
12 RELIGION AND THEOLOGY	38	20	20	5	-	17	2	4	6	-	5	2
13 WRITING	101	23	7	3	16	69	5	11	11	-	42	9
14 ART	227	54	19	-	34	155	10	8	48	-	89	18
15 ENTERTAINMENT AND RECREATION	329	10	9	3	1	241	5	28	41	8	160	78
16 ADMINISTRATIVE SPECIALIZATION	2,[illegible]51	775	630	324	145	1,335	145	73	563	111	442	242
18 MANAGERS AND OFFICIALS, N.E.C.	3,401	686	550	255	136	2,599	254	112	1,394	155	678	115

OCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1979-Continued

MICHIGAN

	TOTAL											
	REGULAR UI											
	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN,REAL EST,INS	SERVICES	GOVERN-MENT
OCCUPATION												
0&1 PROFESSIONAL, TECHNICAL, & MANAGERIAL												
19 MISCELLANEOUS PROFESSIONAL, TECHNICAL, AND MANAGERIAL......	486	32	28	11	4	304	15	69	29	6	185	149
2 CLERICAL & SALES TOTAL...............	19,845	4,778	3,446	1,296	1,332	13,733	1,016	1,212	6,870	1,243	3,351	1,334
29 MISCELLANEOUS SALES...........	1,868	222	111	45	111	1,600	51	40	1,245	42	215	46
2_ CLERICAL AND SALES,UNSPECI-FIED...........	2	-	-	-	-	2	-	-	-	-	2	-
20 STENOGRAPHY, TYPING, FILING, AND RELATED....	5,551	1,445	1,137	437	307	3,441	427	335	947	474	1,246	665
21 COMPUTING AND ACCOUNT RECORDING......	5,901	1,100	789	259	312	4,496	322	312	2,219	549	1,082	304
22 MATERIAL AND PRODUCTION RECORDING......	2,494	1,474	1,039	418	435	995	53	151	640	10	136	25
23 INFORMATION AND MESSAGE DISTRIBUTION...	1,116	164	120	47	44	848	53	270	123	61	339	104
24 MISCELLANEOUS CLERICAL.......	489	72	51	27	21	255	13	40	59	27	116	162
25 SALESPERSONS, SERVICES.......	201	51	28	7	23	147	6	32	33	40	36	3
26 SALES,CONSUMA-BLE COMMODITIES	274	34	19	8	16	237	11	2	203	7	14	3

OCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1979-Continued

MICHIGAN

	TOTAL											
	REGULAR UI											
	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN, REAL EST, INS	SERVICES	GOVERN-MENT
OCCUPATION												
2 CLERICAL & SALES												
27 SALES, COMMODITIES, N.E.C.....	1,171	117	79	21	38	1,036	50	13	837	26	109	18
3 SERVICE TOTAL............	13,841	2,238	1,748	705	430	10,048	322	192	4,830	251	4,435	1,555
3_ SERVICE, UNSPECIFIED....	2	-	-	-	-	2	-	-	-	-	2	-
30 DOMESTIC SERVICE........	449	91	73	34	17	326	18	30	55	27	196	32
31 FOOD AND BEVERAGE PREPARATION AND SERVICE........	6,344	339	206	55	133	5,778	63	53	4,142	48	1,469	228
32 LODGING AND RELATED SERVICE	1,013	69	46	7	23	857	18	8	89	22	720	86
33 BARBERING, COSMETOLOGY, AND RELATED SERVICE........	146	10	7	4	3	135	1	1	15	-	117	1
34 AMUSEMENT AND RECREATION SERVICE........	191	11	7	-	4	163	5	2	45	3	108	18
35 MISCELLANEOUS PERSONAL SERVICE........	1,006	62	34	14	28	717	18	17	59	11	610	227
36 APPAREL AND FURNISHINGS SERVICE........	495	157	117	34	40	331	19	3	38	3	269	7
37 PROTECTIVE SERVICE........	1,230	130	115	55	15	518	93	36	92	23	270	582
38 BUILDING AND RELATED SERVICE	2,936	1,358	1,134	496	224	1,207	88	41	29[illegible]	114	665	370

OCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1979-Continued

MICHIGAN

	TOTAL											
	REGULAR UI											
OCCUPATION	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN,REAL EST,INS	SERVICES	GOVERN-MENT
4 FARMING, FISHERY, FORESTRY, & RELATED TOTAL	2,280	525	458	66	68	1,364	191	35	230	91	808	391
40 PLANT FARMING	1,897	365	327	61	38	1,190	141	17	184	86	757	342
41 ANIMAL FARMING	78	12	6	1	5	62	14	8	4	3	31	5
42 MISCELLANEOUS FARMING AND RELATED	75	36	15	1	22	38	10	2	15	1	9	1
44 FISHERY AND RELATED	15	1	1	-	-	9	3	-	6	-	-	5
45 FORESTRY	174	94	91	-	3	42	13	7	14	-	7	38
46 HUNTING AND RELATED	5	-	-	-	-	5	3	-	2	-	-	-
5 PROCESSING TOTAL	10,987	8,909	6,895	1,041	2,014	1,923	625	159	715	53	327	155
50 PROCESSING OF METAL	4,369	3,103	2,842	676	261	1,164	368	136	398	47	210	102
51 ORE REFINING AND FOUNDRY	3,481	3,355	3,284	188	70	124	47	2	57	1	17	2
52 PROCESSING OF FOOD, TOBACCO, AND RELATED PRODUCTS	1,413	1,130	190	51	941	270	24	11	195	4	34	13
53 PROCESSING OF PAPER AND RELATED MATERIALS	37	28	6	4	22	8	-	-	2	-	6	2

OCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1979-Continued

MICHIGAN

	TOTAL											
	REGULAR UI											
	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN, REAL EST, INS	SERVICES	GOVERNMENT
OCCUPATION												
5 PROCESSING												
54 PETROLEUM, COAL, NATURAL & RELATED PRODUCTS	30	19	14	3	5	10	2	-	1	-	5	2
55 CHEMICALS, PLASTICS, SYNTHETICS, RUBBER, PAINT, & RELATED	962	881	277	84	604	73	14	2	26	-	25	7
56 PROCESSING OF WOOD & WOOD PRODUCTS	60	43	38	-	6	15	8	-	1	-	-	2
57 PROCESSING OF STONE, CLAY, GLASS, & RELATED PRODUCTS	363	178	146	12	32	177	137	-	14	-	8	8
58 PROCESSING OF LEATHER, TEXTILES, AND RELATED PRODUCTS	109	77	21	5	56	18	5	3	7	-	4	14
59 PROCESSING OCCUPATIONS, N.E.C	162	95	78	17	17	65	21	5	13	-	18	2
6 MACHINE TRADES TOTAL	37,552	32,544	29,126	12,923	3,418	4,784	1,375	489	1,831	66	967	224
6_ MACHINE TRADES, UNSPECIFIED	4	4	4	4	-	-	-	-	-	-	-	-

OCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1979-Continued

MICHIGAN

	TOTAL											
	REGULAR UI											
	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN,REAL EST,INS	SERVICES	GOVERN-MENT
OCCUPATION												
6 MACHINE TRADES												
60 METAL MACHINING	22,458	20,463	18,734	9,431	1,729	1,880	705	136	625	35	365	115
61 METALWORKING, N.E.C..........	9,322	8,846	7,942	2,538	905	450	130	30	161	7	117	25
62&63 MECHANICS AND MACHINERY REPAIR.........	3,970	1,786	1,602	787	184	2,134	419	312	962	19	392	50
64 PAPERWORKING...	223	189	61	15	127	35	3	5	10	-	14	-
65 PRINTING.......	306	254	37	7	216	47	8	2	6	2	29	6
66 WOOD MACHINING.	463	366	349	14	17	91	37	4	31	-	18	6
67 MACHINING STONE, CLAY, GLASS, & RELATED........	55	33	27	8	6	22	5	-	7	-	10	-
68 TEXTILE........	135	79	66	29	13	44	25	-	8	3	7	13
69 MACHINE TRADES, N.E.C..........	615	524	303	90	221	83	44	1	22	1	15	8
7 BENCH WORK TOTAL............	16,256	14,473	10,161	4,007	4,312	1,698	412	89	647	43	495	84
7_ BENCH WORK,UNSPECIFIED............	3	3	3	2	-	-	-	-	-	-	-	-
70 FABRICATION, ASSEMBLY, & REPAIR OF METAL PRODUCTS, N.E.C..........	10,129	9,278	7,761	3,084	1,517	812	182	73	309	12	231	39

OCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1979-Continued

MICHIGAN

	TOTAL											
	REGULAR UI											
	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN,REAL EST,INS	SERVICES	GOVERN-MENT
OCCUPATION 7 BENCH WORK												
71 FAB & REP OF SCIENTIFIC, MEDICAL, OPTICAL, TIME & REL EQUIP......	308	204	164	82	40	100	18	3	28	2	49	4
72 ASSEMBLY & REPAIR OF ELECTRICAL EQUIPMENT......	755	611	573	120	38	142	36	5	63	3	34	2
73 FAB & REPAIR OF PRODUCTS MADE FROM ASSORTED MATERIALS......	332	288	224	61	64	43	5	1	18	-	18	2
74 PAINTING, DECO-RATING, & RELATED........	944	716	588	341	128	218	123	2	28	4	60	10
75 FAB & REPAIR OF PLASTICS, SYNTHETICS, RUBBER & RELATED.........	419	391	130	54	261	23	14	-	4	-	4	5
76 FABRICATION & REPAIR OF WOOD PRODUCTS.......	284	223	209	42	14	51	11	1	27	2	9	10
77 FAB & REPAIR OF SAND, STONE, CLAY, & GLASS PRODUCTS.......	118	87	78	6	10	31	6	-	21	-	2	-

OCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1979-Continued

MICHIGAN

	TOTAL											
	REGULAR UI											
OCCUPATION	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN,REAL EST,INS	SERVICES	GOVERN-MENT
7 BENCH WORK												
78 FAB & REPAIR OF TEXTILE, LEATHER, & RELATED PRODUCTS........	2,889	2,608	414	211	2,194	271	9	3	149	19	88	10
79 BENCHWORK, N.E.C..........	75	64	17	5	47	9	7	-	-	-	-	1
8 STRUCTURAL WORK TOTAL..............	62,460	39,391	37,172	24,197	2,220	22,447	17,749	581	2,027	258	1,549	621
8_ STRUCTURAL WORK,UNSPECIFIED.............	2	2	-	-	2	-	-	-	-	-	-	-
80 METAL FABRICATING, N.E.C..........	34,127	31,164	29,489	21,032	1,675	2,821	1,083	198	901	51	577	142
81 WELDERS, FLAME CUTTERS, & RELATED........	4,827	4,240	4,170	1,732	71	573	232	55	97	14	158	13
82 ELECTRICAL ASSEMBLING, INSTALLING & REPAIRING......	1,911	835	787	398	49	1,055	818	59	87	5	71	21
84 PAINTING, PLASTERING, WATERPROOFING, CEMENTING & RELATED........	2,388	246	219	102	27	2,122	1,917	8	89	12	88	20

OCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1979-Continued

MICHIGAN

	TOTAL											
	REGULAR UI											
OCCUPATION	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN,REAL EST,INS	SERVICES	GOVERN-MENT
8 STRUCTURAL WORK												
85 EXCAVATING, GRADING, PAVING, & RELATED........	2,891	199	162	24	38	2,635	2,268	70	90	14	64	56
86 CONSTRUCTION, N.E.C..........	14,175	1,650	1,461	482	188	12,326	11,106	118	577	93	344	200
89 STRUCTURAL WORK, N.E.C....	1,190	504	403	169	101	563	124	51	125	65	184	123
9 MISCELLANEOUS TOTAL.............	23,538	11,662	9,125	2,928	2,537	11,320	2,626	4,162	2,784	103	994	556
9_ MISCELLANEOUS,UNSPECIFIED..	2	2	2	-	-	-	-	-	-	-	-	-
90 MOTOR FREIGHT..	7,924	1,935	1,643	394	292	5,800	1,334	3,130	859	26	321	188
91 TRANSPORTATION, N.E.C.........	1,546	419	338	124	81	996	74	306	465	9	129	131
92 PACKAGING & MATERIALS HANDLING.......	12,854	8,954	6,923	2,334	2,031	3,717	1,045	685	1,400	58	433	183
93 EXTRACTION OF MINERALS.......	536	61	58	28	3	473	43	5	15	-	8	3
95 PRODUCTION & DISTRIBUTION OF UTILITIES......	194	55	39	10	16	108	50	17	19	-	19	30
96 AMUSEMENT, RECREATION, & MOTION PICTURE OCCUPATIONS, N.E.C.........	82	17	13	5	4	61	15	9	5	1	29	5
97 GRAPHIC ART WORK...........	265	152	61	20	91	103	34	-	12	7	49	9

SOURCE: MESC BUREAU OF RESEARCH AND STATISTICS

OCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1981

MICHIGAN

	TOTAL											
	REGULAR UI											
	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN,REAL EST,INS	SERVICES	GOVERN-MENT
TOTAL...............	225,700	131,931	112,316	46,046	19,615	81,709	24,645	5,664	26,337	3,107	18,768	12,060
OCCUPATION												
0&1 PROFESSIONAL, TECHNICAL, & MANAGERIAL TOTAL............	18,166	3,761	2,926	926	835	9,268	891	351	3,272	547	4,140	5,138
00&01 ARCHITECTURE & ENGINEERING..	2,500	935	803	153	132	1,465	176	37	191	37	998	100
02 MATHEMATICS & PHYSICAL SCIENCES.......	377	171	115	24	57	166	11	13	53	7	74	39
04 LIFE SCIENCES..	474	21	12	-	9	215	5	1	28	12	169	238
05 SOCIAL SCIENCES	106	46	37	16	10	42	5	1	17	-	19	18
07 MEDICINE AND HEALTH.........	920	145	72	29	73	641	9	3	108	-	519	133
09 EDUCATION......	3,836	65	45	17	20	319	17	9	27	3	263	3,452
10 MUSEUM, LIBRARY, AND ARCHIVAL SCIENCES.......	215	72	63	23	9	89	22	1	31	3	33	54
11 LAW AND JURISPRUDENCE..	106	7	7	3	-	75	1	3	18	11	41	24
12 RELIGION AND THEOLOGY.......	46	18	15	5	3	21	3	5	5	2	6	7
13 WRITING........	123	37	17	13	20	68	2	14	22	-	32	18
14 ART............	263	54	30	8	24	172	5	6	66	5	89	37
15 ENTERTAINMENT AND RECREATION.	318	25	19	5	6	232	2	41	50	4	135	61
16 ADMINISTRATIVE SPECIALIZATION.	3,648	935	703	237	232	2,223	249	77	857	241	793	490
18 MANAGERS AND OFFICIALS, N.E.C..........	4,011	742	543	174	199	3,085	314	105	1,722	206	717	184

OCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1981-Continued

MICHIGAN

	TOTAL											
	REGULAR UI											
	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN, REAL EST, INS	SERVICES	GOVERN-MENT
OCCUPATION												
0&1 PROFESSIONAL, TECHNICAL, & MANAGERIAL												
19 MISCELLANEOUS PROFESSIONAL, TECHNICAL, AND MANAGERIAL.....	579	41	30	3	11	279	12	26	31	8	198	259
2 CLERICAL & SALES TOTAL..............	23,157	4,647	3,409	773	1,237	15,919	1,318	813	8,438	1,535	3,755	2,591
29 MISCELLANEOUS SALES..........	2,056	192	105	19	87	1,818	69	45	1,443	25	234	46
20 STENOGRAPHY, TYPING, FILING, AND RELATED....	7,285	1,533	1,150	274	383	4,512	539	279	1,330	630	1,708	1,240
21 COMPUTING AND ACCOUNT RECORDING......	6,434	965	712	128	254	5,012	421	205	2,834	576	958	457
22 MATERIAL AND PRODUCTION RECORDING......	2,379	1,369	1,044	288	325	974	63	65	698	10	131	35
23 INFORMATION AND MESSAGE DISTRIBUTION...	934	144	103	27	41	719	68	90	144	73	343	70
24 MISCELLANEOUS CLERICAL.......	1,012	45	30	6	15	276	11	31	67	73	93	691
25 SALESPERSONS, SERVICES.......	397	47	25	1	22	340	26	40	122	104	47	11
26 SALES, CONSUMABLE COMMODITIES	227	35	24	9	11	186	14	1	152	4	15	7
27 SALES, COMMODITIES, N.E.C.....	1,966	240	163	17	77	1,706	93	42	1,374	26	169	20

OCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1981-Continued

MICHIGAN

	TOTAL											
	REGULAR UI											
	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN, REAL EST, INS	SERVICES	GOVERN-MENT
OCCUPATION												
3 SERVICE TOTAL............	13,358	2,299	1,753	651	546	9,463	253	163	4,521	284	4,217	1,595
30 DOMESTIC SERVICE........	528	137	113	37	24	337	12	10	80	39	196	54
31 FOOD AND BEVERAGE PREPARATION AND SERVICE........	6,047	314	189	84	124	5,334	39	29	3,824	36	1,399	400
32 LODGING AND RELATED SERVICE	814	51	36	7	15	706	28	9	78	49	537	57
33 BARBERING, COSMETOLOGY, AND RELATED SERVICE........	145	14	11	6	2	129	-	-	26	2	102	2
34 AMUSEMENT AND RECREATION SERVICE........	185	13	12	8	1	147	1	3	27	3	113	24
35 MISCELLANEOUS PERSONAL SERVICE........	1,105	63	35	12	28	706	11	31	67	9	586	337
36 APPAREL AND FURNISHINGS SERVICE........	621	148	111	25	37	451	35	8	59	9	341	22
37 PROTECTIVE SERVICE........	960	199	163	90	36	505	47	19	79	13	342	256
38 BUILDING AND RELATED SERVICE	2,936	1,357	1,079	380	279	1,136	79	54	274	124	598	442
4 FARMING, FISHERY, FORESTRY, & RELATED TOTAL............	2,051	398	321	106	77	1,321	172	48	232	134	720	332
40 PLANT FARMING..	1,608	225	179	93	47	1,099	115	23	175	127	648	284
41 ANIMAL FARMING.	93	16	13	5	3	62	5	7	7	-	43	15

OCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1981-Continued

MICHIGAN

	TOTAL											
	REGULAR UI											
	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN,REAL EST,INS	SERVICES	GOVERN-MENT
OCCUPATION												
4 FARMING, FISHERY, FORESTRY, & RELATED												
42 MISCELLANEOUS FARMING AND RELATED........	58	20	11	2	9	34	6	8	9	3	6	5
44 FISHERY AND RELATED........	19	6	5	-	1	10	2	-	7	-	-	3
45 FORESTRY.......	178	104	99	-	5	61	28	4	17	1	11	13
46 HUNTING AND RELATED........	23	9	4	2	6	11	5	2	1	-	3	3
5 PROCESSING TOTAL............	12,791	9,933	7,329	1,104	2,603	2,587	656	161	938	113	644	271
50 PROCESSING OF METAL..........	5,809	3,829	3,339	726	490	1,770	428	121	611	97	510	211
51 ORE REFINING AND FOUNDRY....	3,399	3,183	3,042	194	141	205	62	12	70	8	38	11
52 PROCESSING OF FOOD, TOBACCO, AND RELATED PRODUCTS.......	1,403	1,139	232	46	907	241	26	10	160	5	35	23
53 PROCESSING OF PAPER AND RELATED MATERIALS......	110	99	19	-	80	11	-	1	4	-	5	-
54 PETROLEUM,COAL,NATURAL & MANUF. GAS, & RELATED PRODUCTS.......	30	26	10	5	16	4	3	-	-	-	-	-

OCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1981-Continued

MICHIGAN

	TOTAL											
	REGULAR UI											
	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN,REAL EST,INS	SERVICES	GOVERN-MENT
OCCUPATION												
5 PROCESSING												
55 CHEMICALS, PLASTICS, SYNTHETICS, RUBBER, PAINT, & RELATED......	1,201	1,091	276	73	815	106	21	6	42	3	30	3
56 PROCESSING OF WOOD & WOOD PRODUCTS.......	157	111	101	3	10	38	9	6	15	-	3	8
57 PROCESSING OF STONE, CLAY, GLASS, & RELATED PRODUCTS.......	343	199	177	8	23	137	91	3	10	-	9	7
58 PROCESSING OF LEATHER, TEXTILES, AND RELATED PRODUCTS.......	113	82	31	7	51	27	5	-	17	-	3	4
59 PROCESSING OCCUPATIONS, N.E.C..........	226	172	102	41	70	49	12	1	9	-	10	5
6 MACHINE TRADES TOTAL.............	43,471	36,656	31,851	10,308	4,805	6,491	1,687	448	2,288	86	1,476	324
6_ MACHINE TRADES,UNSPECI-FIED...........	3	1	1	-	-	1	-	-	-	-	1	-
60 METAL MACHINING	25,552	22,752	19,972	6,878	2,779	2,595	806	150	830	60	734	206
61 METALWORKING, N.E.C.........	9,943	9,282	8,266	2,405	1,016	643	203	21	241	-	164	17
62&63 MECHANICS AND MACHINERY REPAIR.........	5,410	2,535	2,245	750	289	2,810	536	265	1,054	18	462	65

OCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1981-Continued

MICHIGAN

	TOTAL											
	REGULAR UI											
	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN,REAL EST,INS	SERVICES	GOVERN-MENT
OCCUPATION												
6 MACHINE TRADES												
64 PAPERWORKING...	352	312	104	40	208	40	8	4	9	-	17	1
65 PRINTING.......	338	273	52	10	221	57	13	-	18	3	23	8
66 WOOD MACHINING.	722	580	546	36	35	129	50	1	52	-	26	13
67 MACHINING STONE, CLAY, GLASS, & RELATED........	87	47	37	10	9	40	6	-	10	2	21	-
68 TEXTILE........	231	173	141	62	32	54	20	4	17	-	14	3
69 MACHINE TRADES, N.E.C..........	834	701	485	118	216	122	45	2	56	3	15	11
7 BENCH WORK TOTAL............	18,606	16,452	12,505	5,046	3,947	2,051	673	63	740	23	534	102
70 FABRICATION, ASSEMBLY, & REPAIR OF METAL PRODUCTS, N.E.C..........	12,482	11,306	9,807	4,145	1,500	1,109	413	34	397	8	245	66
71 FAB & REP OF SCIENTIFIC, MEDICAL, OPTICAL, TIME & REL EQUIP......	165	83	76	27	8	78	12	3	20	-	43	3
72 ASSEMBLY & REPAIR OF ELECTRICAL EQUIPMENT......	1,019	815	767	288	48	190	54	10	56	2	68	14
73 FAB & REPAIR OF PRODUCTS MADE FROM ASSORTED MATERIALS......	295	259	191	40	67	34	4	3	10	1	18	2

OCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1981-Continued

MICHIGAN

	TOTAL											
	REGULAR UI											
	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN, REAL EST, INS	SERVICES	GOVERN-MENT
OCCUPATION												
7 BENCH WORK												
74 PAINTING, DECORATING, & RELATED........	922	662	552	216	110	250	150	3	44	1	52	10
75 FAB & REPAIR OF PLASTICS, SYNTHETICS, RUBBER & RELATED........	405	378	145	29	233	28	2	2	10	2	12	-
76 FABRICATION & REPAIR OF WOOD PRODUCTS.......	580	506	438	149	68	71	21	2	34	1	12	3
77 FAB & REPAIR OF SAND, STONE, CLAY, & GLASS PRODUCTS.......	104	87	73	4	14	16	3	-	5	-	5	1
78 FAB & REPAIR OF TEXTILE, LEATHER, & RELATED PRODUCTS.......	2,576	2,316	428	139	1,887	257	14	3	158	9	71	3
79 BENCHWORK, N.E.C..........	58	41	28	9	13	17	1	3	5	-	9	-
8 STRUCTURAL WORK TOTAL.............	68,913	45,764	43,532	24,957	2,232	22,346	16,541	506	2,164	289	1,970	803
8_ STRUCTURAL WORK, UNSPECIFIED.............	1	-	-	-	-	1	-	-	-	-	-	-
80 METAL FABRICATING, N.E.C..........	40,618	36,868	35,257	22,798	1,611	3,446	1,324	219	1,011	80	785	305

UCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1981-Continued

MICHIGAN

	TOTAL											
	REGULAR UI											
	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN, REAL EST, INS	SERVICES	GOVERN-MENT
OCCUPATION												
8 STRUCTURAL WORK												
81 WELDERS, FLAME CUTTERS, & RELATED........	4,672	3,857	3,779	1,077	78	777	282	29	119	12	212	38
82 ELECTRICAL ASSEMBLING, INSTALLING & REPAIRING......	3,401	1,912	1,816	321	96	1,454	1,093	36	133	6	83	34
84 PAINTING, PLASTERING, WATERPROOFING, CEMENTING & RELATED........	2,259	334	277	96	57	1,894	1,709	8	63	19	85	31
85 EXCAVATING, GRADING, PAVING, & RELATED........	2,764	242	208	12	34	2,449	1,724	65	97	14	60	73
86 CONSTRUCTION, N.E.C..........	13,642	1,788	1,584	465	205	11,649	10,220	122	610	68	524	204
89 STRUCTURAL WORK, N.E.C....	1,242	575	452	145	123	562	127	25	117	88	191	105
9 MISCELLANEOUS TOTAL.............	25,188	12,022	8,690	2,177	3,332	12,263	2,455	3,111	3,744	96	1,311	903
9_ MISCELLANEOU-S, UNSPECIFIED..	2	-	-	-	-	2	-	-	2	-	-	-
90 MOTOR FREIGHT..	7,661	2,114	1,779	362	335	5,316	1,198	2,280	1,166	22	365	230
91 TRANSPORTATION, N.E.C..........	1,630	317	251	81	66	976	62	271	461	8	142	337
92 PACKAGING & MATERIALS HANDLING.......	13,759	9,136	6,351	1,656	2,786	4,347	982	524	1,999	58	627	276

OCCUPATIONS OF UI CLAIMANTS BY INDUSTRY
DECEMBER 1981-Continued

MICHIGAN

	TOTAL											
	REGULAR UI											
	TOTAL REG UI	MANUF.	DURABLES	TRANS. EQUIP.	NON-DURABLES	NON-MANUF.	CONST.	UTIL.	TRADE	FIN, REAL EST, INS	SERVICES	GOVERN-MENT
OCCUPATION												
9 MISCELLANEOUS												
93 EXTRACTION OF MINERALS........	1,344	113	99	31	13	1,221	69	5	46	3	39	10
95 PRODUCTION & DISTRIBUTION OF UTILITIES.......	206	76	62	18	13	100	46	20	12	-	14	30
96 AMUSEMENT, RECREATION, & MOTION PICTURE OCCUPATIONS, N.E.C..........	135	37	31	9	6	89	21	3	18	-	46	9
97 GRAPHIC ART WORK............	337	176	72	5	105	156	54	2	27	1	70	5

SOURCE: MESC BUREAU OF RESEARCH AND STATISTICS

APPENDIX D

OCCUPATIONAL EMPLOYMENT PROJECTIONS
STATE OF MICHIGAN
1980 - 1983

OCCUPATIONAL TITLE	1980 EMPLOYMENT	1983 EMPLOYMENT	CHANGE NUMBER	CHANGE PERCENT	AVERAGE ANNUAL OPENINGS TOTAL	AVERAGE ANNUAL OPENINGS GROWTH	AVERAGE ANNUAL OPENINGS REPLCMTS
TOTAL, ALL OCCUPATIONS	3725375	3765800	40425	1.1	123541	13475	110066
PROFESSIONAL, TECHNICAL, KINDRED	577875	589925	12050	2.1	19309	4017	15292
ENGINEERS, TECHNICAL	54375	56825	2450	4.5	1841	817	1024
AERO-ASTRONAUTIC ENGINEERS	350	350	0	0.0	5	0	5
CHEMICAL ENGINEERS	2125	2175	50	2.4	45	17	28
CIVIL ENGINEERS	4300	4375	75	1.7	144	25	119
ELECTRICAL ENGINEERS	8200	8200	0	0.0	131	0	131
INDUSTRIAL ENGINEERS	9975	10500	525	5.3	346	175	171
MECHANICAL ENGINEERS	18400	19750	1350	7.3	777	450	327
METALLURGICAL ENGINEERS	1275	1350	75	5.9	53	25	28
MINING ENGINEERS	100	100	0	0.0	1	0	1
PETROLEUM ENGINEERS	125	150	25	20.0	10	8	2
SALES ENGINEERS	2025	2025	0	0.0	54	0	54
OTHER ENGINEERS	7475	7875	400	5.4	292	133	159
LIFE AND PHYSICAL SCIENTISTS	9525	9700	175	1.8	211	58	152
AGRICULTURAL SCIENTISTS	625	650	25	4.0	23	8	15
ATMOSPHERIC AND SPACE SCIENTISTS	175	150	-25	-14.3	-6	-8	2
BIOLOGICAL SCIENTISTS	2100	2125	25	1.2	42	8	33
CHEMISTS	5350	5475	125	2.3	126	42	84
GEOLOGISTS	400	400	0	0.0	4	0	4
PHYSICISTS AND ASTRONOMERS	725	750	25	3.4	17	8	9
OTHER LIFE AND PHYSICAL SCIENTISTS	175	175	0	0.0	5	0	5
MATHEMATICAL SPECIALISTS	1175	1225	50	4.3	39	17	23
ACTUARIES	200	200	0	0.0	3	0	3
MATHEMATICIANS	275	300	25	9.1	12	8	3
STATISTICIANS	725	750	25	3.4	24	8	16
ENGINEERING AND SCIENCE TECHNICIANS	46550	49250	2700	5.8	1559	900	659
AGRI AND BIOLOG TECH., EXC HEALTH	1550	1675	125	8.1	93	42	51
CHEMICAL TECHNICIANS	2900	2925	25	.9	54	8	45
DRAFTERS	26075	28025	1950	7.5	997	650	347
ELECTRICAL AND ELECTRONIC TECHNICIANS	3600	3550	-50	-1.4	19	-17	35
INDUSTRIAL ENGINEERING TECHNICIANS	900	950	50	5.6	30	17	13
MECHANICAL ENGINEERING TECHNICIANS	1675	1800	125	7.5	64	42	23
SURVEYORS	1725	1850	125	7.2	61	42	19
OTHER ENGINEERING & SCIENCE TECHNICIANS	8125	8475	350	4.3	242	117	125

OCCUPATIONAL EMPLOYMENT PROJECTIONS
STATE OF MICHIGAN
1980 - 1983

	1980	1983	CHANGE		AVERAGE ANNUAL OPENINGS		
OCCUPATIONAL TITLE	EMPLOYMENT	EMPLOYMENT	NUMBER	PERCENT	TOTAL	GROWTH	REPLCMTS
MEDICAL WORKERS, EXCEPT TECHNICIANS	77225	81000	3775	4.9	3567	1258	2309
CHIROPRACTORS	1550	1750	200	12.9	148	67	81
DENTISTS	6100	6550	450	7.4	244	150	94
DIETITIANS	1850	1925	75	4.1	94	25	69
OPTOMETRISTS	1125	1275	150	13.3	114	50	64
PHARMACISTS	5825	5800	-25	-.4	281	-8	289
PHYSICIANS, MEDICAL AND OSTEOPATHIC	15200	16050	850	5.6	476	283	193
PODIATRISTS	450	500	50	11.1	32	17	15
REGISTERED NURSES	36700	38450	1750	4.8	1849	583	1266
THERAPISTS	7225	7400	175	2.4	271	58	213
VETERINARIANS	1200	1250	50	4.2	39	17	23
OTHER MEDICAL WORKERS, EXC TECHNICIANS	25	25	0	0.0	2	0	2
HEALTH TECHNOLOGISTS AND TECHNICIANS	20175	21175	1000	5.0	880	333	546
CLINICAL LAB TECHNOL AND TECHNICIANS	8175	8550	375	4.6	331	125	206
DENTAL HYGIENISTS	1825	1975	150	8.2	114	50	64
HEALTH RECORD TECHNOL AND TECHNICIANS	725	775	50	6.9	45	17	28
RADIOLOGIC TECHNOL AND TECHNICIANS	3975	4200	225	5.7	186	75	111
THERAPY ASSISTANTS	175	175	0	0.0	4	0	4
OTHER HEALTH TECHNOL AND TECHNICIANS	5325	5525	200	3.8	201	67	134
TECHNICIANS, EXCEPT HEALTH	4700	4650	-50	-1.1	71	-17	88
AIRPLANE PILOTS	1175	1175	0	0.0	16	0	16
AIR TRAFFIC CONTROLLERS	525	500	-25	-4.8	-5	-8	4
EMBALMERS	150	150	0	0.0	6	0	6
RADIO OPERATORS	1100	1075	-25	-2.3	19	-8	28
TOOL PROGRAMMERS, NUMERICAL CONTROL	225	225	0	0.0	2	0	2
OTHER TECHNICIANS, EXCEPT HEALTH	1525	1550	25	1.6	40	8	32
COMPUTER SPECIALISTS	13475	13775	300	2.2	218	100	118
COMPUTER PROGRAMMERS	8050	8225	175	2.2	131	58	72
COMPUTER SYSTEMS ANALYSTS	4725	4825	100	2.1	72	33	39
OTHER COMPUTER SPECIALISTS	675	700	25	3.7	15	8	7
SOCIAL SCIENTISTS	9400	9675	275	2.9	245	92	153
ECONOMISTS	5150	5375	225	4.4	156	75	81
PSYCHOLOGISTS	3325	3350	25	.8	63	8	55
SOCIOLOGISTS	125	125	0	0.0	2	0	2
URBAN AND REGIONAL PLANNERS	700	700	0	0.0	10	0	10
OTHER SOCIAL SCIENTISTS	125	125	0	0.0	6	0	6

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OCCUPATIONAL TITLE	1980 EMPLOYMENT	1983 EMPLOYMENT	CHANGE NUMBER	CHANGE PERCENT	AVERAGE ANNUAL OPENINGS TOTAL	AVERAGE ANNUAL OPENINGS GROWTH	AVERAGE ANNUAL OPENINGS REPLCMTS
TEACHERS	157950	155775	-2175	-1.4	4052	-725	4777
COLLEGE AND UNIVERSITY TEACHERS	19650	19250	-400	-2.0	309	-133	442
ELEMENTARY AND SECONDARY TEACHERS	118800	117200	-1600	-1.3	3049	-533	3583
PRESCHOOL AND KINDERGARTEN TEACHERS	8200	9075	-125	-1.4	271	-42	313
OTHER TEACHERS, EXC COLLEGE & UNIVER	10300	10250	-50	-.5	423	-17	439
WRITERS, ARTISTS AND ENTERTAINERS	44425	45575	1150	2.6	1475	383	1092
ACTORS	125	125	0	0.0	3	0	3
ATHLETES AND RELATED	3025	3300	275	9.1	161	92	70
AUTHORS	875	875	0	0.0	28	0	28
DANCERS	375	375	0	0.0	15	0	15
DESIGNERS	7825	8325	500	6.4	287	167	120
EDITORS AND REPORTERS	5200	5200	0	0.0	164	0	164
MUSICIANS AND COMPOSERS	7275	7250	-25	-.3	205	-8	213
PAINTERS AND SCULPTORS	7025	7050	25	.4	184	8	176
PHOTOGRAPHERS	3800	3850	50	1.3	108	17	92
PUBLIC RELATIONS SPECIALISTS	3800	3875	75	2.0	131	25	106
RADIO AND TV ANNOUNCERS	1075	1100	25	2.3	20	8	12
OTHER WRITERS, ARTISTS AND ENTERTAINERS	4025	4200	175	4.3	152	58	94
OTHER PROFESSIONAL, TECHNICAL & KINDRED	138900	141350	2450	1.8	5168	817	4351
ACCOUNTANTS	38275	38975	700	1.8	1305	233	1072
ARCHITECTS	2725	3050	325	11.9	189	108	81
ARCHIVISTS AND CURATORS	225	225	0	0.0	11	0	11
CLERGY	12950	12950	0	0.0	572	0	572
RELIGIOUS WORKERS EXCEPT CLERGY	2450	2500	50	2.0	168	17	151
FORESTERS AND CONSERVATIONISTS	1425	1475	50	3.5	41	17	24
LAWYERS AND JUDGES	17025	18275	1250	7.3	1244	417	828
LIBRARIANS	5050	4975	-75	-1.5	172	-25	197
OPERATIONS AND SYSTEMS RESEARCH WORKERS	3950	4075	125	3.2	93	42	51
PERSONNEL AND LABOR RELATIONS WORKERS	15850	16525	675	4.3	559	225	334
RESEARCH WORKERS, OTHER	6050	6125	75	1.2	139	25	114
RECREATION WORKERS	4750	4700	-50	-1.1	98	-17	114
SOCIAL WORKERS	18150	17625	-525	-2.9	366	-175	541
VOCATIONAL AND EDUCATIONAL COUNSELORS	9850	9700	-150	-1.5	206	-50	256
OTHER PROFESSIONAL, TECHNICAL & KINDRED	225	225	0	0.0	6	0	6
MANAGERS, OFFICIALS, PROPRIETORS	346525	344625	-1900	-.5	10702	-633	11336

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OCCUPATIONAL TITLE	1980 EMPLOYMENT	1983 EMPLOYMENT	CHANGE		AVERAGE ANNUAL OPENINGS		
			NUMBER	PERCENT	TOTAL	GROWTH	REPLCMTS
BUYERS AND SALES AND LOAN MANAGERS	57900	57575	-325	-.6	1352	-108	1460
BANK AND FINANCIAL MANAGERS	18275	18650	375	2.1	585	125	460
CREDIT MANAGERS	1750	1750	0	0.0	44	0	44
BUYERS AND SHIPPERS, FARM PRODUCTS	350	350	0	0.0	19	0	19
BUYERS, WHOLESALE AND RETAIL	5775	5575	-200	-3.5	149	-67	215
PURCHASING AGENTS AND BUYERS, OTHER	8000	8150	150	1.9	246	50	196
SALES MANAGERS, RETAIL TRADE	12800	12100	-700	-5.5	59	-233	292
SALES MANAGERS EXCEPT RETAIL TRADE	10975	11000	25	.2	242	8	234
ADMINISTRATORS AND PUBLIC INSPECTORS	39500	38850	-650	-1.6	1185	-217	1402
ASSESSORS AND CONTROLLERS, LOCAL PUB ADMIN	1450	1425	-25	-1.7	80	-8	88
CONSTRUCTION INSPECTORS, PUBLIC ADMIN	1050	1025	-25	-2.4	49	-8	58
HEALTH ADMINISTRATORS	6250	6575	325	5.2	341	108	233
INSPECTORS, EXC CONSTRUCTION; PUB ADMIN	4250	4050	-200	-4.7	59	-67	126
OFFICIALS AND ADMINISTRATORS, OTHER PUBLIC	10650	10225	-425	-4.0	329	-142	471
POSTMASTERS AND MAIL SUPERINTENDENTS	850	800	-50	-5.9	21	-17	37
SCHOOL ADMINISTRATORS, POSTSECONDARY	1750	1700	-50	-2.9	36	-17	53
SCHOOL ADMIN., ELEM AND SECONDARY	13300	13100	-200	-1.5	271	-67	337
OTHER MANAGERS, OFFICIALS & PROPRIETORS	249125	248200	-925	-.4	8165	-308	8473
FUNERAL DIRECTORS	1875	1900	25	1.3	93	8	85
MANAGERS AND SUPERINTENDENTS, BUILDING	3225	3100	-125	-3.9	211	-42	253
OFFICE MANAGERS, OTHER	13200	13425	225	1.7	470	75	395
OFFICERS, PILOTS AND PURSERS; SHIP	350	350	0	0.0	10	0	10
OFFICIALS, LODGES AND UNIONS	6275	5650	-625	-10.0	-54	-208	154
RAILROAD CONDUCTORS	1225	1250	25	2.0	41	8	33
RESTAURANT, CAFE AND BAR MANAGERS	22125	22500	375	1.7	819	125	694
OTHER MANAGERS, OFFICIALS & PROPRIETORS	200875	200050	-825	-.4	6575	-275	6850
SALES WORKERS	224350	219675	-4675	-2.1	6688	-1558	8247
ADVERTISING AGENTS AND SALES WORKERS	3950	4000	50	1.3	122	17	105
AUCTIONEERS	200	200	0	0.0	5	0	5
INSURANCE AGENTS, BROKERS AND RELATED	19125	19375	250	1.3	659	83	576
REAL ESTATE AGENTS AND BROKERS	15575	14750	-825	-5.3	607	-275	882
STOCK AND BOND SALES AGENTS	2150	2500	350	16.3	221	117	104
SALES CLERKS AND SALES WORKERS, NEC	183350	178850	-4500	-2.5	5075	-1500	6575
CLERICAL AND KINDRED WORKERS	659175	661825	2650	.4	21841	883	20957

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	1980	1983	CHANGE		AVERAGE ANNUAL OPENINGS		
OCCUPATIONAL TITLE	EMPLOYMENT	EMPLOYMENT	NUMBER	PERCENT	TOTAL	GROWTH	REPLCMTS
SECRETARIES, STENOGRAPHERS AND TYPISTS	192650	195475	2825	1.5	7591	942	6649
LEGAL SECRETARIES	5850	6425	575	9.8	418	192	226
MEDICAL SECRETARIES	3900	4100	200	5.1	195	67	128
OTHER SECRETARIES, INCL STENOGRAPHERS	136775	138400	1625	1.2	5290	542	4749
TYPISTS	46150	46525	375	.8	1671	125	1546
OFFICE MACHINE OPERATORS	31250	32050	800	2.6	1017	267	750
BOOKKEEPING & BILLING MACHINE OPERATORS	2150	2175	25	1.2	76	8	68
CALCULATING MACHINE OPERATORS	1100	1100	0	0.0	38	0	38
COMPUTER & PERIPHERAL EQUIPMENT OPERATORS	11350	11575	225	2.0	233	75	158
DUPLICATING MACHINE OPERATORS	975	1025	50	5.1	39	17	23
KEYPUNCH OPERATORS	12450	12875	425	3.4	509	142	367
TABULATING MACHINE OPERATORS	125	125	0	0.0	3	0	3
OTHER OFFICE MACHINE OPERATORS	3100	3175	75	2.4	118	25	93
OTHER CLERICAL WORKERS	435250	434325	-925	-.2	13250	-308	13559
BANK TELLERS	19400	19850	450	2.3	722	150	572
BILLING CLERKS	6400	6425	25	.4	214	8	206
BOOKKEEPERS	67925	68250	325	.5	2697	108	2588
CASHIERS	55100	53000	-2100	-3.8	1090	-700	1790
CLERICAL ASSISTANTS, SOCIAL WELFARE	2900	2775	-125	-4.3	-6	-42	36
CLERICAL SUPERVISORS, NEC	8800	8775	-25	-.3	203	-8	211
COLLECTORS, BILL AND ACCOUNT	2525	2525	0	0.0	70	0	70
COUNTER CLERKS, EXCEPT FOOD	16275	15800	-475	-2.9	444	-158	602
DISPATCHERS AND STARTERS, VEHICLE	2800	2725	-75	-2.7	57	-25	82
ENUMERATORS AND INTERVIEWERS	2700	2700	0	0.0	95	0	95
ESTIMATORS AND INVESTIGATORS, NEC	17325	17225	-100	-.6	471	-33	504
EXPEDITERS AND PRODUCTION CONTROLLERS	10025	10450	425	4.2	354	142	213
FILE CLERKS	10625	10750	125	1.2	399	42	357
INSURANCE ADJUSTERS AND EXAMINERS	6475	6550	75	1.2	143	25	118
LIBRARY ATTENDANTS AND ASSISTANTS	5425	5325	-100	-1.8	148	-33	181
MAIL CARRIERS, POST OFFICE	10150	9600	-550	-5.4	21	-183	204
MAIL HANDLERS, EXCEPT POST OFFICE	5275	5375	100	1.9	206	33	172
MESSENGERS AND COURIERS	1700	1725	25	1.5	62	8	54
METER READERS, UTILITIES	1675	1650	-25	-1.5	9	-8	17
PAYROLL AND TIMEKEEPING CLERKS	9275	9325	50	.5	297	17	280
POSTAL CLERKS	9450	8950	-500	-5.3	85	-167	251
PROOFREADERS	1050	1075	25	2.4	65	8	57
REAL ESTATE APPRAISERS	1000	975	-25	-2.5	39	-8	48
RECEPTIONISTS	26275	27475	1200	4.6	1372	400	972
SHIPPING AND RECEIVING CLERKS	17125	17275	150	.9	456	50	406
STATISTICAL CLERKS	12075	12175	100	.8	417	33	384
STOCK CLERKS AND STOREKEEPERS	21050	21200	150	.7	553	50	503

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TEACHER AIDES, EXC SCHOOL MONITORS	10850	10700	-150	-1.4	192	-50	242
TELEGRAPH MESSENGERS	125	100	-25	-20.0	-6	-8	2
TELEGRAPH OPERATORS	250	250	0	0.0	9	0	9
TELEPHONE OPERATORS	13150	13000	-150	-1.1	431	-50	481
TICKET STATION AND EXPRESS AGENTS	2875	2825	-50	-1.7	52	-17	69
WEIGHERS	1425	1450	25	1.8	49	8	41
OTHER CLERICAL WORKERS	55800	56025	225	.4	1816	75	1741
CRAFTS AND KINDRED WORKERS	508775	516075	7300	1.4	14044	2433	11611
BLUE COLLAR WORKER SUPERVISORS, NEC	71175	72700	1525	2.1	2031	508	1523
CONSTRUCTION CRAFTS WORKERS	120350	117850	-2500	-2.1	2006	-833	2839
BRICKMASONS AND STONEMASONS	7225	7025	-200	-2.8	65	-67	132
BULLDOZER OPERATORS	4050	3925	-125	-3.1	39	-42	81
CARPENTERS	32575	31425	-1150	-3.5	509	-383	892
CEMENT AND CONCRETE FINISHERS	1950	1850	-100	-5.1	-2	-33	32
ELECTRICIANS	25300	25425	125	.5	570	42	529
EXCAVATING & GRADIING MACHINE OPERATORS	9075	8475	-600	-6.6	-58	-200	142
FLOOR LAYERS, EXCEPT TILE SETTERS	450	425	-25	-5.6	-1	-8	7
PAINTERS, CONSTRUCTION AND MAINTENANCE	13850	13725	-125	-.9	396	-42	437
PAPERHANGERS	350	350	0	0.0	26	0	26
PLASTERERS	800	775	-25	-3.1	15	-8	23
PLUMBERS AND PIPE FITTERS	18025	17950	-75	-.4	395	-25	420
ROOFERS AND SLATERS	2950	2850	-100	-3.4	14	-33	47
STRUCTURAL METAL WORKERS	2600	2550	-50	-1.9	38	-17	54
TILE SETTERS	1150	1125	-25	-2.2	9	-8	18
METAL CRAFTS WORKERS, EXCEPT MECHANICS	94925	99700	4775	5.0	3730	1592	2138
BLACKSMITHS	200	200	0	0.0	9	0	9
BOILERMAKERS	1050	1075	25	2.4	37	8	28
HEAT TREATERS, ANNEALERS AND RELATED	2275	2425	150	6.6	109	50	59
FORGE & HAMMER OPERATORS	1675	1775	100	6.0	65	33	31
JOB AND DIE SETTERS, METAL	14750	15600	850	5.8	593	283	310
MACHINISTS	14025	14525	500	3.6	533	167	366
MILLWRIGHTS	10575	11125	550	5.2	421	183	238
MOLDERS, METAL	3450	3600	150	4.3	114	50	64
PATTERN AND MODEL MAKERS	4975	5250	275	5.5	207	92	115
ROLLERS AND FINISHERS, METAL	1350	1425	75	5.6	54	25	29
SHEETMETAL WORKERS AND TINSMITHS	6450	6525	75	1.2	149	25	124
TOOL AND DIE MAKERS	34175	36200	2025	5.9	1440	675	765

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			NUMBER	PERCENT	TOTAL	GROWTH	REPLCMTS
MECHANICS, REPAIRERS AND INSTALLERS	132925	136325	3400	2.6	3858	1133	2724
AIR CONDITIONING, HEATING & REFRIG	6400	6300	-100	-1.6	139	-33	172
AIRCRAFT MECHANICS AND REPAIRERS	1300	1250	-50	-3.8	-1	-17	16
AUTOMOBILE ACCESSORIES INSTALLERS	475	525	50	10.5	25	17	9
AUTOMOBILE BODY REPAIRERS	8375	8900	525	6.3	306	175	131
AUTOMOBILE MECHANICS	45325	47175	1850	4.1	1450	617	834
DATA PROCESSING MACHINE REPAIRERS	1775	1800	25	1.4	21	8	12
FARM IMPLEMENT REPAIRERS	2550	2500	-50	-2.0	60	-17	77
HEAVY EQUIP MECHANICS, INCL DIESEL	40925	42050	1125	2.7	1321	375	946
HOUSEHOLD APPLIANCE MECHANICS	6650	6550	-100	-1.5	105	-33	138
OFFICE MACHINE REPAIRERS	2550	2550	0	0.0	31	0	31
RADIO AND TELEVISION REPAIRERS	3675	3700	25	.7	87	8	79
RAILROAD AND CAR SHOP REPAIRERS	1300	1325	25	1.9	41	8	33
OTHER MECHANICS, REPAIRERS & INSTALLERS	11625	11700	75	.6	272	25	247
PRINTING TRADE CRAFTS WORKERS	13950	14200	250	1.8	446	83	363
BOOKBINDERS	1075	1075	0	0.0	43	0	43
COMPOSITORS AND TYPESETTERS	5075	5125	50	1.0	191	17	174
ELECTROTYPERS AND STEREOTYPERS	200	200	0	0.0	5	0	5
ENGRAVERS, EXCEPT PHOTOENGRAVERS	400	400	0	0.0	6	0	6
PHOTOENGRAVERS AND LITHOGRAPHERS	1325	1350	25	1.9	42	8	33
PRINTING PRESS OPERATORS	5925	6050	125	2.1	142	42	101
TRANSPORTATION AND PUBLIC UTILITY CRAFTS	19800	19375	-425	-2.1	121	-142	263
ELECTRIC POWER LINE INSTALLERS	3975	3950	-25	-.6	39	-8	47
LOCOMOTIVE ENGINEERS	1200	1200	0	0.0	41	0	41
LOCOMOTIVE ENGINEER HELPERS	275	275	0	0.0	4	0	4
POWER STATION OPERATORS	1050	1075	25	2.4	39	8	31
TELEPHONE INSTALLERS AND REPAIRERS	11125	10775	-350	-3.1	5	-117	121
TELEPHONE LINE INSTALLERS AND SPLICERS	2175	2100	-75	-3.4	-6	-25	19
OTHER CRAFTS AND KINDRED WORKERS	55650	55950	300	.5	1861	100	1761
BAKERS	5600	5700	100	1.8	240	33	207
CABINET MAKERS	2325	2325	0	0.0	114	0	114
CARPET INSTALLERS	3450	3350	-100	-2.9	16	-33	50
CRANE, DERRICK AND HOIST OPERATORS	9175	9375	200	2.2	259	67	193
DECORATORS AND WINDOW DRESSERS	4375	4250	-125	-2.9	109	-42	150
DENTAL LABORATORY TECHNICIANS	1450	1500	50	3.4	56	17	39
FURNITURE AND WOOD FINISHERS	800	800	0	0.0	52	0	52
GLAZIERS	1625	1600	-25	-1.5	21	-8	29
INSPECTORS, LOG AND LUMBER	175	175	0	0.0	8	0	8
INSPECTORS, OTHER	5825	5825	0	0.0	167	0	167
JEWELERS AND WATCHMAKERS	1350	1425	75	5.6	94	25	69

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			NUMBER	PERCENT	TOTAL	GROWTH	REPLCMTS
MILLERS; GRAIN, FLOUR AND FEED	375	375	0	0.0	11	0	11
MOTION PICTURE PROJECTIONISTS	500	500	0	0.0	28	0	28
OPTICIANS, AND LENS GRINDERS & POLISHERS	1325	1350	25	1.9	35	8	26
PIANO AND ORGAN TUNERS AND REPAIRERS	350	350	0	0.0	20	0	20
SHOE REPAIRERS	600	600	0	0.0	57	0	57
SIGN PAINTERS AND LETTERERS	875	900	25	2.9	50	8	42
STATIONARY ENGINEERS	7125	7125	0	0.0	212	0	212
STONE CUTTERS AND STONE CARVERS	200	200	0	0.0	6	0	6
TAILORS	1175	1125	-50	-4.3	80	-17	97
UPHOLSTERERS	2875	2950	75	2.6	128	25	103
OTHER CRAFTS AND KINDRED WORKERS	4100	4125	25	.6	88	8	80
OPERATIVES	627525	645000	17475	2.8	19919	5825	14094
OPERATIVES, EXCEPT TRANSPORT	495875	514500	18625	3.8	17533	6208	11325
SEMI-SKILLED METALWORKING OPERATIVES	112500	117975	5475	4.9	4124	1825	2299
DRILL PRESS OPERATIVES	5450	5650	200	3.7	172	67	106
FURNACE TENDERS, SMELTERS & POURERS	5425	5725	300	5.5	208	100	108
GRINDING MACHINE OPERATIVES	19625	20625	1000	5.1	787	333	453
HEATERS, METAL	600	625	25	4.2	23	8	15
LATHE AND MILLING MACHINE OPERATIVES	8275	8600	325	3.9	299	108	191
METAL PLATERS	2350	2525	175	7.4	102	58	44
PRECISION MACHINE OPERATIVES, OTHER	5700	5975	275	4.8	218	92	126
PUNCH AND STAMPING PRESS OPERATIVES	24200	25625	1425	5.9	976	475	501
SOLDERERS	900	875	-25	-2.8	15	-8	24
WELDERS AND FLAME-CUTTERS	40000	41725	1725	4.3	1307	575	732
SEMI-SKILLED TEXTILE OPERATIVES	525	500	-25	-4.8	7	-8	16
SEMI-SKILLED PACKING AND INSPECTING OPER	67875	70675	2800	4.1	2661	933	1728
CHECKERS, EXAMINERS AND RELATED, MFG	42400	44825	2425	5.7	1847	808	1039
GRADERS AND SORTERS, MANUFACTURING	1075	1100	25	2.3	46	8	38
MEAT WRAPPERS, RETAIL TRADE	2350	2225	-125	-5.3	23	-42	65
PACKERS & WRAPPERS, EXC MEAT & PRODUCE	21400	21875	475	2.2	717	158	558
PRODUCE GRADERS & PACKERS, EXC MFG., FARM	625	675	50	8.0	45	17	28
OTHER OPERATIVES, EXCEPT TRANSPORT	315000	325375	10375	3.3	10740	3458	7282
ASBESTOS AND INSULATION WORKERS	1150	1125	-25	-2.2	9	-8	17
ASSEMBLERS	90950	96000	5050	5.6	3357	1683	1673
BLASTERS	125	125	0	0.0	5	0	5
BOTTLING AND CANNING OPERATIVES	2025	2050	25	1.2	64	8	56
CLOTHING IRONERS AND PRESSERS	2975	2750	-225	-7.6	43	-75	118

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			NUMBER	PERCENT	TOTAL	GROWTH	REPLCMTS
CUTTING OPERATIVES, OTHER	9450	9800	350	3.7	367	117	250
DRESSMAKERS, EXCEPT FACTORY	4225	4125	-100	-2.4	244	-33	277
DRILLERS, EARTH	2475	2500	25	1.0	56	8	48
DRY WALL INSTALLERS AND LATHERS	2250	2175	-75	-3.3	-4	-25	21
DYERS	175	175	0	0.0	4	0	4
FILERS, POLISHERS, SANDERS & BUFFERS	10075	10650	575	5.7	442	192	250
FURNACE TENDERS AND STOKERS, EXCEPT METAL	3825	3850	25	.7	136	8	128
GARAGE WORKERS & GAS STATION ATTENDANTS	18125	18200	75	.4	344	25	319
LAUNDRY & DRY CLEANING OPERATIVES, OTHER	7425	7250	-175	-2.4	263	-58	321
MEAT CUTTERS & BUTCHERS, EXCEPT MFG	8150	7825	-325	-4.0	178	-108	287
MEAT CUTTERS & BUTCHERS, MANUFACTURING	1800	1825	25	1.4	51	8	42
MINE OPERATIVES, OTHER	2600	2450	-150	-5.8	1	-50	51
MIXING OPERATIVES	2525	2575	50	2.0	67	17	50
OILERS AND GREASERS, EXCEPT AUTO	2550	2625	75	2.9	100	25	75
PAINTERS, MANUFACTURED ARTICLES	10050	10600	550	5.5	385	183	202
PHOTOGRAPHIC PROCESS WORKERS	2975	3050	75	2.5	95	25	70
RIVETERS AND FASTENERS	1050	1075	25	2.4	32	8	24
SAILORS AND DECKHANDS	425	425	0	0.0	6	0	6
SAWYERS	4350	4325	-25	-.6	161	-8	170
SEWERS AND STITCHERS	9625	10350	725	7.5	608	242	366
SHOEMAKING MACHINE OPERATIVES	475	475	0	0.0	11	0	11
SURVEYOR HELPERS	450	450	0	0.0	8	0	8
WINDING OPERATIVES, OTHER	2350	2200	-150	-6.4	15	-50	65
OTHER MACHINE OPERATIVES	66600	69450	2850	4.3	2329	950	1379
OTHER OPERATIVES	43775	44900	1125	2.6	1366	375	991
TRANSPORT EQUIPMENT OPERATIVES	131650	130500	-1150	-.9	2386	-383	2769
BUS DRIVERS	12500	12200	-300	-2.4	288	-100	388
DELIVERY AND ROUTE WORKERS	30925	30600	-325	-1.1	553	-108	662
FORK LIFT AND TOW MOTOR OPERATIVES	23275	24150	875	3.8	613	292	321
PARKING ATTENDANTS	1325	1325	0	0.0	76	0	76
RAIL VEHICLE OPERATORS, OTHER	250	250	0	0.0	4	0	4
RAILROAD BRAKE OPERATORS AND COUPLERS	1175	1200	25	2.1	27	8	19
RAILROAD SWITCH OPERATORS	1775	1825	50	2.8	46	17	29
TAXICAB DRIVERS AND CHAUFFEURS	4750	4700	-50	-1.1	192	-17	208
TRUCK DRIVERS	55625	54175	-1450	-2.6	574	-483	1057
OTHER TRANSPORT EQUIPMENT OPERATIVES	75	75	0	0.0	4	0	4
SERVICE WORKERS	551475	562375	10900	2.0	25042	3633	21409

OCCUPATIONAL EMPLOYMENT PROJECTIONS
STATE OF MICHIGAN
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OCCUPATIONAL TITLE	1980 EMPLOYMENT	1983 EMPLOYMENT	CHANGE NUMBER	CHANGE PERCENT	AVERAGE ANNUAL OPENINGS TOTAL	AVERAGE ANNUAL OPENINGS GROWTH	AVERAGE ANNUAL OPENINGS REPLCMTS
SERVICE WORKERS EXC PRIVATE HOUSEHOLD	523675	534575	10900	2.1	23271	3633	19638
CLEANING SERVICE WORKERS	111625	113525	1900	1.7	6239	633	5605
BUILDING INTERIOR CLEANERS, OTHER	33750	34875	1125	3.3	2042	375	1667
JANITORS AND SEXTONS	71975	72625	650	.9	3880	217	3664
LODGING QUARTERS CLEANERS, EXC PRIV	5875	6050	175	3.0	332	58	274
FOOD SERVICE WORKERS	194700	197975	3275	1.7	7326	1092	6234
BARTENDERS	14050	14300	250	1.8	671	83	588
COOKS, EXCEPT PRIVATE HOUSEHOLD	48800	49650	850	1.7	2001	283	1717
DISHWASHERS	13300	13525	225	1.7	445	75	370
FOOD COUNTER AND FOUNTAIN WORKERS	15925	16000	75	.5	539	25	514
WAITERS	69625	70875	1250	1.8	2582	417	2165
WAITERS' ASSISTANTS	12150	12350	200	1.6	175	67	108
OTHER FOOD SERVICE WORKERS, EXC PRIVATE	20850	21250	400	1.9	905	133	771
HEALTH SERVICE WORKERS	102100	107600	5500	5.4	5215	1833	3381
DENTAL ASSISTANTS	7875	8475	600	7.6	474	200	274
HEALTH AIDES, EXCEPT NURSING	16300	17225	925	5.7	851	308	543
NURSING AIDES, ORDERLIES AND ATTENDANTS	49275	51875	2600	5.3	2493	867	1626
PRACTICAL NURSES	28175	29575	1400	5.0	1391	467	924
OTHER HEALTH WORKERS	450	475	25	5.6	23	8	14
PERSONAL SERVICE WORKERS	58250	58800	550	.9	2525	183	2342
ATTENDANTS, RECREATION AND AMUSEMENT	3650	3650	0	0.0	113	0	113
ATTENDANTS, PERSONAL SERVICE, OTHER	2950	2975	25	.8	157	8	148
BAGGAGE PORTERS AND BELLHOPS	450	450	0	0.0	22	0	22
BARBERS	4775	4800	25	.5	259	8	251
BOARDING, LODGING HOUSEKEEPERS	625	625	0	0.0	43	0	43
CHILD CARE WORKERS, EXCEPT PRIVATE	11775	11600	-175	-1.5	491	-58	549
ELEVATOR OPERATORS	1050	1075	25	2.4	64	8	56
FLIGHT ATTENDANTS	200	200	0	0.0	9	0	9
HAIRDRESSERS AND COSMETOLOGISTS	20500	21200	700	3.4	974	233	740
HOUSEKEEPERS, EXCEPT PRIVATE HOUSEHOLD	5600	5675	75	1.3	264	25	239
SCHOOL MONITORS	4300	4250	-50	-1.2	86	-17	103
USHERS, RECREATION AND AMUSEMENT	575	575	0	0.0	10	0	10
WELFARE SERVICE AIDES	1725	1675	-50	-2.9	36	-17	53
OTHER PERSONAL SERVICE WORKERS	50	50	0	0.0	4	0	4

OCCUPATIONAL EMPLOYMENT PROJECTIONS
STATE OF MICHIGAN
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OCCUPATIONAL TITLE	1980 EMPLOYMENT	1983 EMPLOYMENT	CHANGE		AVERAGE ANNUAL OPENINGS		
			NUMBER	PERCENT	TOTAL	GROWTH	REPLCMTS
PROTECTIVE SERVICE WORKERS	57025	56675	-350	-.6	1959	-117	2075
CROSSING GUARDS AND BRIDGE TENDERS	1975	1925	-50	-2.5	172	-17	189
FIRE FIGHTERS	7750	7600	-150	-1.9	45	-50	95
GUARDS	24175	24600	425	1.8	1612	142	1470
POLICE AND DETECTIVES	23100	22525	-575	-2.5	123	-192	315
OTHER PROTECTIVE SERVICE WORKERS	50	50	0	0.0	6	0	6
PRIVATE HOUSEHOLD WORKERS	27800	27800	0	0.0	1771	0	1771
CHILD CARE WORKERS, PRIVATE HOUSEHOLD	15350	15350	0	0.0	832	0	832
CLEANERS AND SERVANTS, PRIVATE HOUSEHOLD	9500	9500	0	0.0	699	0	699
COOKS, PRIVATE HOUSEHOLD	350	350	0	0.0	31	0	31
HOUSEKEEPERS, PRIVATE HOUSEHOLD	2400	2400	0	0.0	190	0	190
LAUNDERERS, PRIVATE HOUSEHOLD	200	200	0	0.0	20	0	20
LABORERS, EXCEPT FARM	164650	163075	-1575	-1.0	2980	-525	3505
ANIMAL CARETAKERS, EXCEPT FARM	4425	4575	150	3.4	197	50	147
CARPENTERS' HELPERS	1775	1700	-75	-4.2	18	-25	43
CONSTRUCTION LABORERS, OTHER	18800	17775	-1025	-5.5	27	-342	368
FISHERS, HUNTERS AND TRAPPERS	175	225	50	28.6	22	17	6
FREIGHT AND MATERIAL HANDLERS	28925	29225	300	1.0	609	100	509
GARBAGE COLLECTORS	4675	4600	-75	-1.6	95	-25	120
GARDENERS & GROUNDSKEEPERS, EXCEPT FARM	16800	16925	125	.7	780	42	739
LONGSHORE WORKERS AND STEVEDORES	250	250	0	0.0	6	0	6
TIMBER CUTTING AND LOGGING WORKERS	2075	1900	-175	-8.4	5	-58	63
STOCK HANDLERS	47000	45325	-1675	-3.6	25	-558	583
VEHICLE WASHERS AND EQUIPMENT CLEANERS	9575	9800	225	2.3	249	75	174
WAREHOUSE LABORERS, OTHER	3000	2925	-75	-2.5	31	-25	56
OTHER LABORERS	27225	27850	625	2.3	899	208	691
FARMERS AND FARM WORKERS	65050	63250	-1800	-2.8	3016	-600	3616
FARMERS AND FARM MANAGERS	36300	34650	-1650	-4.5	2023	-550	2573
FARMERS (OWNERS AND TENANTS)	35400	33650	-1750	-4.9	1958	-583	2542
FARM MANAGERS	900	1000	100	11.1	64	33	31
FARM LABORERS AND SUPERVISORS	28750	28600	-150	-.5	993	-50	1043
FARM LABOR SUPERVISORS	350	350	0	0.0	11	0	11
FARM LABORERS, WAGE EARNING	20100	20700	600	3.0	901	200	701
FARM LABORERS, OTHER	8300	7550	-750	-9.0	81	-250	331

NOTE: DUE TO ROUNDING TOTALS MAY NOT EQUAL THE SUMMATION OF DETAIL COMPONENTS.